

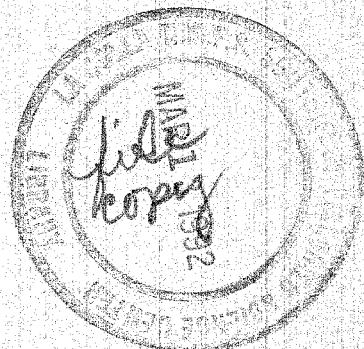


NOAA Technical Memorandum NMFS

AUGUST 1987

REPORT OF A MARINE MAMMAL SURVEY OF THE EASTERN TROPICAL PACIFIC ABOARD THE RESEARCH VESSEL *McARTHUR* JULY 29 - DECEMBER 6, 1986

Rennie S. Holt
Alan Jackson



NOAA-TM-NMFS-SWFC-77

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Southwest Fisheries Center

NOAA Technical Memorandum NMFS

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La Jolla, California

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U.S. DEPARTMENT OF COMMERCE

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CONTENTS

	Page
List of Tables	iii
List of Figures	iv
Survey Objectives	1
Materials and Methods	2
Study Area and Itinerary	2
Scientific Personnel	2
Marine Mammal Species Surveyed	3
Equipment	3
Duty Stations	4
Observer Teams and Rotation	4
Data Collection Procedures	5
Data Analyses	6
Results	7
Conclusions	8
Acknowledgments.....	9
Literature Cited	10
Tables	11
Figures	142

LIST OF TABLES

	Page
Table 1. Sea state conditions measured by the Beaufort scale (from Bowditch, 1966)	11
Table 2. Daily searching effort recorded in the eastern tropical Pacific aboard the <u>McArthur</u> during July 29 through December 6, 1986.....	12
Table 3. Marine mammal sightings, classified by species code groups, encountered in the eastern tropical Pacific during July 29 through December 6, 1986.....	93
Table 4. Marine mammal school size estimates for each observer, classified by species code, for all sightings encountered in the eastern tropical Pacific during July 29 through December 6, 1986.....	125
Table 5. Summary of marine mammal sightings encountered in the eastern tropical Pacific during July 29 through December 6, 1986.....	139
Table 6. Summary of distance searched, large dolphin schools detected, and rates of encountering dolphins by observers aboard the <u>McArthur</u> in the eastern tropical Pacific during July 29 through December 6, 1986.....	141

LIST OF FIGURES

	Page
Figure 1. Tracklines surveyed from the R/V <u>McArthur</u> in the eastern tropical Pacific during July 29 through December 6, 1986.....	142
Figure 2. Research ship marine mammal daily effort record.....	143
Figure 3. Research ship marine mammal sighting record.....	144
Figure 4. Vertical and horizontal sun position categories.....	145
Figure 5. Research ship marine mammal sighting record continuation sheet.....	146
Figure 6. Offshore (+) and coastal (o) spotted dolphins detected from aboard the NOAA Ship <u>McArthur</u> from July 29 through December 6, 1986 in the eastern tropical Pacific.....	147
Figure 7. Eastern (+), whitebelly (o) and unidentified (v) spinner dolphins detected from aboard the NOAA Ship <u>McArthur</u> from July 29 through December 6, 1986 in the eastern tropical Pacific.....	148
Figure 8. Common dolphins (+) detected from aboard the NOAA Ship <u>McArthur</u> from July 29 through December 6, 1986 in the eastern tropical Pacific.....	149
Figure 9. Striped dolphins (+) detected from aboard the NOAA Ship <u>McArthur</u> from July 29 through December 6, 1986 in the eastern tropical Pacific.....	150
Figure 10. Bottlenose dolphins (+) detected from aboard the NOAA Ship <u>McArthur</u> from July 29 through December 6, 1986 in the eastern tropical Pacific.....	151
Figure 11. Risso's dolphins (+) detected from aboard the NOAA Ship <u>McArthur</u> from July 29 through December 6, 1986 in the eastern tropical Pacific.....	152

Figure 12.	Rough-toothed dolphins (+) detected from aboard the NOAA Ship <u>McArthur</u> from July 29 through December 6, 1986 in the eastern tropical Pacific.....	153
Figure 13.	Pilot whales (+) detected from aboard the NOAA Ship <u>McArthur</u> from July 29 through December 6, 1986 in the eastern tropical Pacific.....	154
Figure 14.	Sperm (+) and pygmy sperm (v) whales detected from aboard the NOAA Ship <u>McArthur</u> from July 29 through December 6, 1986 in the eastern tropical Pacific.....	155
Figure 15.	Unidentified rorquals (+), Bryde's (o) and minke (\square) whales detected from aboard the NOAA Ship <u>McArthur</u> from July 29 through December 6, 1986 in the eastern tropical Pacific.....	156
Figure 16.	Unidentified beaked (+), Cuvier's beaked (o) and unidentified mesoplodon (v) whales detected from aboard the NOAA Ship <u>McArthur</u> from July 29 through December 6, 1986 in the eastern tropical Pacific.....	157
Figure 17.	Killer (+) and false killer (o) whales, Fraser's dolphins (v) and melon-headed whales (\square) detected from aboard the NOAA Ship <u>McArthur</u> from July 29 through December 6, 1986 in the eastern tropical Pacific.....	158
Figure 18.	Unidentified dolphins (+) detected from aboard the NOAA Ship <u>McArthur</u> from July 29 through December 6, 1986 in the eastern tropical Pacific.....	159
Figure 19.	Unidentified small whales (+), unidentified whales (o), unidentified large whales (v) and unidentified cetaceans (\square) detected from aboard the NOAA Ship <u>McArthur</u> from July 29 through December 6, 1986 in the eastern tropical Pacific.....	160

Figure 20.

Rate of encountering dolphin schools during each Beaufort state from aboard the McArthur in the eastern tropical Pacific during July 29 through December 6, 1986. Percentages are amount of total effort searched during each sea state.....

161

REPORT OF A MARINE MAMMAL SURVEY OF THE EASTERN TROPICAL PACIFIC
ABOARD THE RESEARCH VESSEL MCARTHUR
JULY 29 - DECEMBER 6, 1986

Rennie S. Holt
and
Alan Jackson

In 1984, as a result of an amendment to the Marine Mammal Protection Act of 1972, the National Marine Fisheries Service (NMFS) was mandated to conduct a research program to monitor trends in the abundance of stocks of dolphins in the eastern tropical Pacific (ETP). These dolphins are killed incidentally during fishing operations by the U. S. purse seine fishery for yellowfin tuna (Thunnus albacares). In 1986, the Southwest Fisheries Center (SWFC) of the NMFS initiated a five-year program to monitor these stocks of dolphins. In this first year of the program, two surveys of marine mammal populations in the ETP were conducted concurrently aboard the National Oceanic and Atmospheric Administration ships the David Starr Jordan and the McArthur. The surveys lasted 120 days each.

In this report, we describe the experimental procedures used during the surveys and we present summaries of the distance searched and marine mammals encountered from aboard the McArthur (Cruise AR 8608-12; SWFC Observer Cruise 990). A separate report of the David Starr Jordan cruise has been published by Holt and Sexton (1987). A report of environmental data collected during the surveys is reported by McDonald et al. (In prep.).

SURVEY OBJECTIVES

The primary objective of the cruise was to collect information to calculate relative abundance of dolphin species in the ETP that are taken incidentally by the purse seine fishery for yellowfin tuna. Specific objectives were to collect information to:

1. estimate school density, school size, and species composition of each species taken by the fishery;
2. investigate the physical and biological environment of the affected species; and
3. contribute to on-going U.S. and international programs investigating oceanography and ocean-atmosphere interactions in the ETP.

MATERIALS AND METHODS

Study Area and Itinerary

The McArthur traversed predetermined tracklines in the ETP from July 29 through December 6, 1986 (Figure 1), with scheduled port calls in Callao, Peru; Panama City, Panama; and Hilo, HI. Instead of stopping at Callao, however, the ship was diverted to Guayaquil, Ecuador and then made an additional stop at Panama City to obtain additional fuel. The itinerary of the ship included four segments or effort legs:

Leg 1.

Departed	San Diego	July 29, 1986
Arrived	Guayaquil	August 27, 1986

Leg 2.

Departed	Guayaquil	September 4, 1986
Arrived	Panama City	September 21, 1986

Departed	Panama City	September 22, 1986
Arrived	Panama City	September 30, 1986

Leg 3.

Departed	Panama City	October 4, 1986
Arrived	Hilo	November 2, 1986

Leg 4.

Departed	Hilo	November 7, 1986
Arrived	San Diego	December 6, 1986

Scientific Personnel

Cruise Leaders

Legs

Steve Reilly, SWFC	1
Rennie Holt, SWFC	2
Alan Jackson, SWFC	3-4

Identification Specialists

Michael Newcomer, SWFC	1-4
Scott Sinclair, SWFC	1-4

Observers

Scott Benson, SWFC	1-4
Carla Bisbee, SWFC	1-4
Larry Robertson, SWFC	1-4
David Scordal, SWFC	1-4

Other Scientists

Alan Jackson, SWFC	2
Oscar Vallarino, Smithsonian Tropical Research Institute and Scripps Institution of Oceanography	3

Marine Mammal Species Surveyed

During the survey, the observers recorded information on all species of whales and dolphins sighted throughout the cruise. However, rates of encountering sightings are presented only for dolphin species. Of these, only large schools with a mean minimum or mean best estimate of >14 animals were used.

Equipment

The McArthur, commissioned in 1966, is 53.3 m in length and 11.6 m in breadth, and has a 3.7 m draft. During the surveys, the vessel maintained a cruising speed of approximately 18.5 km/hr.

Several pieces of equipment were used to gather data. The geographic position of the vessel was recorded periodically and at the time of a marine mammal sighting using the ship's Satellite Navigation System (SAT NAV). Marine mammals were detected using port and starboard pedestal mounted 25X Fuginon¹ binoculars and a variety of hand-held 7-15X binoculars. The glasses were mounted on the upper deck approximately 10.7 m above the sea surface. Surface temperature and salinity, fluorescence (chlorophyll), and temperature-depth profiles were obtained using a thermosalinograph, fluorometer, and expendable bathythermograph (XBT), respectively. Discrete conductivity and temperature-depth profiles were also obtained using conductivity-temperature-depth (CTD) probes.

The bearing and radial distances of marine mammals from the ship were calculated using two methods. First, the Computer Assisted Sighting Technology (CAST) system used information from several sensors to measure sighting angles and then to calculate radial distances. A CAMAC¹ computer collected data from various sources: the ship's course from the gyroscope; the electronically encoded train angles of the 25X binoculars; a measurement of the relative motion of the ship from a pitch-roll sensor; speed from the speed log; and information concerning survey status, such as identification of observers occupying survey positions from data pads located on the flying bridge. An IBM-compatible computer, which was interfaced with the CAMAC, was then used to process information to determine the sighting angle to the cue. Successive sighting angles, recorded as the ship traveled along the trackline, were used to calculate radial distances. Analyses of CAST data will be presented in a separate report.

¹Reference to trade names does not imply endorsement by the NMFS.

The second method was the use of estimates of the bearing and radial distance of a school from the ship, which were recorded by the observers using a 360° graduated washer attached to the base of the 25X binoculars and graduated reticles enclosed in the right eye piece of the binoculars.

A 35 mm F-1 Canon¹ camera with motor drive was used to photograph animals to aid in stock and species identification. The system included 400 mm, 75-210 mm zoom, and 28 mm lens. Some observers also used film supplied by the SWFC in personal camera equipment to photograph sightings. Animals were also recorded on 1.27 cm video tape using a Panasonic¹ VHS recorder and a Panasonic¹ camera equipped with telephoto lens.

Duty Stations

Three duty stations were used during the survey, with observers rotating through each station.

1. Left Binocular - The port-side observer used a 25X binocular, mounted on the port side of the ship to scan the ocean for marine mammal sighting cues. The major area of responsibility for this observer was from the midpoint of the trackline to abeam the port-side of the vessel and outward to the horizon or to the extent possible with prevailing environmental conditions.
2. Right Binocular - The starboard observer used a 25X binocular, mounted on the starboard side of the ship, to search from the midpoint of the trackline to abeam the right side of the ship; and outward to the horizon or to the extent possible with prevailing environmental conditions. Observers in the left and right positions frequently searched areas on the opposite side of the tracklines.
3. Recorder - The recorder's duties were to transcribe effort data at regular intervals, to make notes of information pertaining to each sighting, and, when possible, to search the trackline adjacent to the ship with hand held binoculars for schools not detected by the observers on the 25X glasses.

Observer Teams and Rotation

Two teams of three observers each alternately occupied the three duty stations. Each team was on duty for 2-hour shifts. During each shift members spent approximately equal time occupying each duty station. Two of the six observers had completed several marine mammal cruises in the ETP and were experts in identifying marine mammals. These two identification specialists were assigned to separate teams so that one would always be on duty. The other four observers were systematically assigned to a different team every three days. Team members

rotated among the duty stations and teams rotated on and off duty without interrupting searching effort. Teams alternated completing the first watch of the day.

Data Collection Procedures

A typical day's searching activity began at sunrise, approximately 0630 hours local time, and ended at sunset, approximately 1830 hours local time. The searching procedure was initiated when observers were occupying the duty stations and a recorder was in place to record information on the Research Vessel Effort Form (Figure 2). The ship traversed a predetermined trackline at a constant speed of approximately 18.5 km/hr. Except for approximately 2 to 3 hours per night when oceanographic data were collected, the ship maintained its speed and course between sunset and sunrise to provide wider spatial distribution of searching effort.

When a sighting cue (marine mammals, birds, splashes, etc.) was detected, it was determined if the cue was a marine mammal and if the cue was appropriate for tracking using the CAST system. Schools that were not tracked included whales, dolphins detected close to the vessel or at distances greater than 5.6 km lateral to the vessel, small schools of dolphins (<15 animals), and schools detected during poor sighting conditions. If tracking was appropriate, the searching effort was terminated and the observer began tracking by turning on a switch attached to the binocular stand. With the ship still on course and with the school in the field of view of the binoculars, the CAST system recorded successive bearings of the animals to the ship. After approximately 8 minutes the ship was directed towards the cue and the tracking continued for another 8 minutes. When the target was not in the field of view, the switch was deactivated until the target was again sighted. At the end of the tracking sequence, if the target was lost from view and not resighted, or if the cue was not a marine mammal, the tracking procedure was terminated. All marine mammal schools were approached to obtain estimates of school size and species composition. The searching mode was resumed when the vessel returned to course and speed and the observers resumed searching for other sighting cues.

During each marine mammal sighting, the recorder collected data to complete Research Vessel Effort and Research Vessel Sighting (Figure 3) forms. Definition of each data element is given by Ralston (1983)². Criteria for assigning sun position and sea state conditions are given in Figure 4 and Table 1, respectively. Observers recorded bearing and range for schools using the 360° washer and reticle increments. The reticle measurements were converted to km using

²Ralston, F. Ms. Usage procedures and coding notes for "Research Vessel sighting and effort records. Southwest Fisheries Center, P.O. Box 271, La Jolla, CA 92038.

$$a = 0.003942 \tan (\arctan (45242.52) - 0.001088 r),$$

where a equals radial distance in km and r denotes the number of reticles below the topmost reticle. Values in this equation were calculated by Barlow (per. comm.) using an equation presented by Smith (1982) and data collected during a previous research vessel cruise and the present ETP cruise.

Each observer who had a good view of the school independently recorded in his/her logbook an estimate of school size and a determination of species composition. All available observers determined species identification and animal behavior, and a consensus was entered on the Research Vessel Sighting and Research Vessel Continuation (Figure 5) Forms at the time of a sighting. Species identifications were validated when possible by photographing the school at close range using 35 mm and video cameras.

Data Analyses

Data were recorded for each Beaufort sea state and then grouped into (1) "calm" sea state conditions without whitecaps (Beaufort numbers 0-2) or (2) "rough" sea state conditions with whitecaps (Beaufort numbers 3-5). The presence of whitecaps was important in searching for sighting cues. Animal splashes could not be used as a sighting cue during rough seas because whitecaps were easily confused with the animal splashes.

Sun location was recorded by noting its horizontal and vertical position relative to the ship (Figure 4). Visibility effects were investigated by classifying sun positions into "good" and "poor" categories defined by the effect of the glare from the sun on the trackline. Criteria used were those described in Holt (In press). Poor sun conditions were recorded only when horizontal sun position was 12 and vertical position was 1, 2, or 3 or when there were clouds together with fog or rain. All other conditions were good conditions.

The rate of encountering marine mammal schools was determined as the simple ratio of sightings detected per 1000 km searched. The standard error of the encounter rate was calculated as

$$\hat{V}\hat{a}r(n/L) = [\sum l_i[(n_i/l_i) - (n/L)]^2]/L(R - 1)$$

where n equals the number of dolphin schools detected in the survey, L equals the km searched, l_i equals km searched during the i th day, n_i equals schools detected during the i th day, and R equals number of days searched.

Encounter rates were calculated only for large dolphin schools (> 14 animals) detected during Beaufort states 0 through 5 (elimination of Beaufort 6 data discussed below). Rates were calculated for these schools detected in the entire study area and for schools stratified by area, species, individual Beaufort

numbers, calm and rough sea conditions, good and poor sun conditions, individual observers, and observer teams.

RESULTS

Data describing each leg of searching effort during the entire survey are summarized in Table 2. Information summarized for each marine mammal sighting encountered during the survey is presented in Table 3. The geographic positions of all schools detected during the survey are presented for each species category (code) in Figures 6 through 19. Observer estimates of school size are presented by species codes in Table 4.

During the entire survey, observers searched 13,928 km and detected 381 marine mammal sightings (Table 5). Dolphins were detected in 250 schools and whales were detected in 148 schools (17 schools contained both dolphins and whales). This included 8 species of dolphins and 12 species of whales.

While operating in the searching mode in the study area (Figure 1), observers searched 13,157 km and detected 226 dolphin schools (Table 6). Searching effort was conducted during Beauforts 0 through 6 conditions, although since Beaufort 6 seas were very rough, data collected during these conditions were omitted from further analysis. During Beauforts 0 through 5, 12,172 km were searched and 219 dolphin schools were detected. Of the 219 dolphin schools, 147 were large schools (i.e., average school size greater than 14 animals)

The rate of detecting large schools in the study area was 12.07 schools/1000 km searched (Table 6). The McArthur conducted almost 58% of its effort in the west and south areas and only 21% of its effort in the inshore and northern areas. Detection rates were much higher in the inshore and northern areas than in the west and south areas (Table 6).

Sea conditions in the study area were very rough; only 10% of the searching effort was completed in calm seas (Table 6). However, 21% of all schools were detected during calm seas and the rate of detecting schools during calm seas was more than twice the rate detected during rough seas. Most of the rough sea effort occurred during Beaufort 5 conditions (44% of total effort-Figure 20). With the exception of Beaufort 0 data, which only represented 1% of the searching effort, the rates of detecting dolphins decreased as sea conditions became rougher (i.e., with increasing Beaufort number).

Poor visibility conditions occurred only during 8% of the surveying effort during which only 5% of the schools were detected (Table 6). The rate of detecting schools during good conditions was almost twice the rate during poor conditions.

All observers spent approximately equal time searching

(Table 6), although the percent of schools detected by individual observers ranged from 8 to 27%. Consequently, rates of detecting target schools also varied greatly (range of 1.98 to 6.68 schools/1000 km). Observer experience did not appear to be related to ability to detect dolphin schools. Observers 5 and 38 had completed several research vessel trips during which they searched through 25X binoculars. Observers 55 and 61 had completed several trips on tuna vessels, although observers on tuna vessels do not search through the 25X glasses. Observers 63 and 64 had no experience in the ETP. Although one of the two observers with research vessel experience had the highest detection rate and one of the two observers with no experience had the lowest rate, the second observer with no experience had a higher rate than the second observer with research vessel experience. In addition, one of the observers with tuna vessel experience had the second highest rate while the other had the second lowest rate.

Both teams spent approximately equal time searching (Table 6). Of the 147 large schools detected, 61% were detected by team 2 (when observer 38, the observer with the highest detection rate, was on duty). The rates of detecting schools by teams 1 and 2 were 9.30 and 15.12 schools/1000 km searched, respectively (Table 6). The larger rate by team 2 was due, in part, to the high detection rate of observer 38.

CONCLUSIONS

In this report, we have presented data on dolphin encounter rates, school size, and species composition which meet the primary objectives of the cruise aboard the McArthur. Data on effort and sightings have been summarized. We found that the rate of encountering dolphin schools was higher during calm seas than during rough seas, and the rate during good visibility conditions was higher than the rate during poor visibility conditions. Rates were higher in the inshore and northern areas than in the south and west areas. Encounter rates among observers were variable and there was no apparent correlation with observer experience.

ACKNOWLEDGMENTS

Through the work of many dedicated professionals, the cruise aboard the McArthur was successfully executed. Among those contributing to the success of the cruise were the observers who spent many hours collecting the data, the officers and crew of the McArthur who gave their continuous support, and L. Farrar (Jordan Port Captain) who provided liaison with ship support personnel and the scientists. G. Smith and N. Mendes of the NMFS Southwest Regional Office provided, through an inter-agency loan agreement, the services of S. Benson and L. Robertson. We also thank E. Duffin, R. Hopkins, and R. Schipper for their contribution to the CAST system. Critical logistical arrangements were completed by W. Parks, S. Sexton and P. Stangl. Special efforts were provided in procurement by B. Engstrand and

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Table 1. Sea state conditions measured by the Beaufort scale (from Bowditch, 1966).

Wind force (Beaufort)	Knots	Descriptive	Sea Conditions	Probable wave height in ft.
0	0- 1	Calm	Sea smooth and mirror-like	-
1	1- 3	Light air	Scale-like ripple without foam crests	1/4
2	4- 6	Light breeze	Small short wavelets; crests have a glassy appearance and do not break	1/2
3	7-10	Gentle breeze	Large wavelets; some crests begin to break; foam of glassy appearance. Occasional white foam crests	2
4	11-16	Moderate breeze	Small waves, becoming longer; fairly frequent white foam crests	4
5	17-21	Fresh breeze	Moderate waves, taking a more pronounced long form; many white foam crests; there may be some spray	6
6	22-27	Strong breeze	Large waves begin to form; white foam crests are more extensive everywhere; there may be some spray	10

Table 2. Daily searching effort recorded in the eastern tropical Pacific aboard the McArthur during July 29 through December 6, 1986.

Series	Leg	Date	Speed Km/Hr	Observer Codes		Sun Position	Beauf. No.	course (Deg.)	Position	KM In Leg	
				Left	Right	Horz.	Vert.				
01	01	860801	18.52	64	55	05	08	02	4	206 26 22 N 117 46 W 1.54	
02	01	860801	18.52	64	55	05	08	02	4	206 26 21 N 117 46 W 1.85	
03	01	860801	18.52	64	55	05	08	02	4	206 26 19 N 117 47 W 6.17	
03	02	860801	18.52	55	05	64	08	02	4	206 6.17	
03	03	860801	18.52	05	64	55	08	02	4	206 6.17	
03	04	860801	18.52	64	55	05	08	02	3	206 6.79	
03	05	860801	18.52	55	05	64	08	01	3	206 6.79	
03	06	860801	18.52	61	63	38	09	01	3	206 6.17	
03	07	860801	18.52	63	38	61	09	01	4	206 6.17	
03	08	860801	18.52	38	61	63	09	01	4	206 6.17	
03	09	860801	18.52	61	63	38	09	01	4	206 6.17	
03	10	860801	18.52	63	38	61	09	12	4	206 6.17	
03	11	860801	18.52	55	64	05	05	09	12	4	206 6.17
03	12	860801	18.52	64	05	55	09	12	4	206 6.17	
03	13	860801	18.52	05	55	64	05	12	4	206 6.17	
03	14	860801	18.52	55	64	05	05	12	4	206 6.17	
03	15	860801	18.52	64	05	55	05	12	4	206 6.17	
03	16	860801	18.52	05	55	64	05	12	4	206 6.17	
03	17	860801	18.52	55	64	05	05	12	4	206 6.17	
03	18	860801	18.52	63	38	61	05	12	4	206 6.17	
03	19	860801	18.52	38	61	63	05	12	4	206 6.17	
03	20	860801	18.52	61	63	38	05	12	3	206 6.17	
03	21	860801	18.52	63	38	61	05	12	3	206 6.17	
03	22	860801	18.52	38	61	63	05	12	3	206 6.17	
03	23	860801	18.52	61	63	38	05	12	3	206 6.17	
03	24	860801	18.52	63	38	61	05	12	3	206 6.17	
03	25	860801	18.52	38	61	63	05	12	3	206 6.17	
03	26	860801	18.52	55	64	05	05	12	3	206 6.17	
03	27	860801	18.52	64	05	55	05	12	3	206 6.17	
03	28	860801	18.52	05	55	64	05	12	3	206 6.17	
03	29	860801	18.52	55	64	05	05	12	3	206 6.17	
03	30	860801	18.52	64	05	55	05	12	3	206 6.17	
03	31	860801	18.52	05	55	64	05	12	3	206 6.17	

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes			Sun Position		Beauf. No.	Course (Deg.)	Position Latitude	Position Longitude	KM In Leg		
				Left	Right	Rec.	Horz.	Vert.							
03	32	860801	18.52	63	61	38	63	38	3	206	24 32 N	118 44 W	6.17		
03	33	860801	18.52	61	38	63	61	38	3	206	22 50 N	119 35 W	6.17		
03	34	860801	18.52	38	63	61	38	61	3	206	24 32 N	118 44 W	6.17		
01	01	860802	18.52	63	61	38	64	5	08	03	206	22 50 N	119 35 W	5.25	
01	02	860802	18.52	55	64	05	63	08	02	2	206	206	206	7.10	
01	03	860802	18.52	61	38	63	61	08	02	2	206	206	206	6.17	
01	04	860802	18.52	38	63	61	38	61	08	02	206	206	206	6.17	
01	05	860802	18.52	63	61	38	63	08	02	2	206	206	206	6.17	
01	06	860802	18.52	61	38	63	61	38	02	2	206	206	206	6.48	
01	07	860802	18.52	55	64	05	55	08	02	2	206	206	206	6.17	
01	08	860802	18.52	61	05	55	64	09	02	2	206	206	206	6.17	
01	09	860802	18.52	05	55	64	05	55	02	2	206	206	206	6.17	
01	10	860802	18.52	55	64	05	55	09	02	2	206	206	206	6.17	
01	11	860802	18.52	64	05	55	61	09	01	2	206	206	206	6.17	
01	12	860802	18.52	05	55	64	09	01	2	206	206	206	4.63		
02	01	860802	18.52	55	64	05	55	09	01	2	208	208	208	6.17	
02	02	860802	18.52	61	63	38	61	09	12	1	208	21 55 N	120 00 W	6.17	
02	03	860802	18.52	63	38	61	63	38	09	12	1	208	21 55 N	120 00 W	6.17
02	04	860802	18.52	38	61	63	61	38	09	12	1	208	21 55 N	120 00 W	6.17
02	05	860802	18.52	61	63	38	61	38	12	12	1	208	21 55 N	120 00 W	6.17
02	06	860802	18.52	63	05	61	61	12	12	1	208	21 55 N	120 00 W	1.85	
02	07	860802	18.52	63	38	05	12	12	12	1	208	21 45 N	120 05 W	1.23	
02	08	860802	18.52	63	38	61	61	38	05	12	1	208	21 45 N	120 05 W	3.09
02	09	860802	18.52	38	61	63	63	12	12	1	208	21 45 N	120 05 W	6.17	
02	10	860802	18.52	64	55	05	61	12	12	1	208	21 45 N	120 05 W	6.17	
02	11	860802	18.52	55	64	05	64	05	01	01	1	208	21 45 N	120 05 W	6.17
03	01	860802	18.52	55	64	05	55	01	01	01	1	206	21 35 N	120 12 W	6.17
03	02	860802	18.52	64	05	55	64	02	02	02	1	206	21 35 N	120 12 W	6.17
03	03	860802	18.52	05	55	64	05	55	01	01	1	206	21 21 N	120 17 W	1.23
03	04	860802	18.52	55	64	05	64	05	02	02	1	206	21 21 N	120 17 W	1.85
03	05	860802	18.52	63	1	38	63	02	02	02	1	206	21 16 N	120 22 W	5.25
04	01	860802	18.52	61	38	63	61	38	02	02	1	206	21 16 N	120 22 W	6.17
04	02	860802	18.52	63	38	61	61	38	03	02	1	206	21 16 N	120 22 W	5.86
04	03	860802	18.52	63	1	38	63	03	02	02	1	206	21 16 N	120 22 W	3.70
04	04	860802	18.52	61	38	63	61	38	03	02	1	206	21 16 N	120 22 W	6.17
04	05	860802	18.52	55	64	05	64	05	02	02	1	206	21 16 N	120 22 W	6.17

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes	Sun Position	Beauf. No.	Course (Deg.)	Position Latitude	Position Longitude	KM In Leg
			Left Right	Rec.	Horz. Vert.					
04	06	860802	18.52	64	05	55	03	02	1	206
04	07	860802	18.52	05	55	64	03	03	1	206
01	01	860803	18.52	55	64	05	08	03	2	193
01	02	860803	18.52	64	05	55	08	02	2	193
02	01	860803	18.52	05	55	64	09	02	2	193
03	01	860803	18.52	05	55	64	09	02	2	193
03	02	860803	18.52	63	38	61	09	02	2	193
04	01	860803	18.52	63	38	61	09	01	2	193
04	02	860803	18.52	38	61	63	09	01	2	193
04	03	860803	18.52	61	63	38	09	01	1	193
04	04	860803	18.52	63	38	61	09	01	1	193
04	05	860803	18.52	38	61	63	09	01	1	193
04	06	860803	18.52	61	63	38	09	12	1	193
04	07	860803	18.52	55	64	05	12	12	1	193
04	08	860803	18.52	64	05	55	12	12	1	193
05	01	860803	18.52	05	55	64	12	12	1	193
05	02	860803	18.52	55	64	05	12	12	1	193
05	03	860803	18.52	55	64	05	12	12	2	193
05	04	860803	18.52	64	05	55	12	12	2	193
06	01	860803	18.52	63	61	38	12	12	2	193
06	02	860803	18.52	63	61	38	12	12	2	213
06	03	860803	18.52	61	38	63	12	12	2	213
07	01	860803	18.52	61	38	63	12	12	2	213
07	02	860803	18.52	38	63	61	03	01	2	193
07	03	860803	18.52	63	61	38	03	01	2	193
07	04	860803	18.52	61	38	63	03	01	2	193
07	05	860803	18.52	38	63	61	03	01	3	193
07	06	860803	18.52	55	64	05	03	01	3	193
07	07	860803	18.52	64	05	55	03	01	3	193
07	08	860803	18.52	05	55	64	03	02	3	193
07	09	860803	18.52	38	61	63	03	02	3	193
08	01	860803	18.52	55	64	05	03	02	3	193
08	02	860803	18.52	61	63	38	03	02	3	193
08	03	860803	18.52	63	38	61	03	02	3	193
08	04	860803	18.52	38	61	63	03	02	3	193
08	05	860803	18.52	61	63	38	03	03	3	193
08	06	860803	18.52	63	38	61	03	03	3	193

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes	Sun Position	Beauf. No.	Course (Deg.)	Position Latitude	Position Longitude	KM In Leg
				Left Right Rec.	Horz. Vert.					
08	07	860803	18.52	38	61	63	03	03	193	2.78
08	08	860803	18.52	38	61	63	03	03	193	0.31
01	01	860804	18.52	38	61	05	09	03	190	6.17
01	02	860804	18.52	55	64	05	09	03	190	8.64
01	03	860804	18.52	63	61	38	09	03	190	6.17
01	04	860804	18.52	63	38	61	09	02	3	4.32
02	01	860804	18.52	63	38	61	09	02	4	15.48 N
02	02	860804	18.52	38	61	63	09	02	4	122 20 W
02	03	860804	18.52	61	63	38	09	02	4	6.17
02	04	860804	18.52	55	64	05	09	02	5	2.47
02	05	860804	18.52	64	05	55	09	02	5	15.41 N
02	06	860804	18.52	05	55	64	09	01	4	122 21 W
02	07	860804	18.52	55	64	05	09	01	4	6.48
02	08	860804	18.52	64	05	55	09	01	4	15 30 N
02	09	860804	18.52	05	55	64	09	01	4	122 23 W
02	10	860804	18.52	63	61	38	09	01	4	6.17
02	11	860804	18.52	61	38	63	09	01	4	190
02	12	860804	18.52	38	63	61	09	01	4	190
02	13	860804	18.52	64	05	55	09	01	4	190
02	14	860804	18.52	38	63	61	12	12	4	190
02	15	860804	18.52	63	61	38	12	12	4	190
02	16	860804	18.52	61	38	63	12	12	4	190
02	17	860804	18.52	61	38	63	12	12	4	190
02	18	860804	18.52	38	63	61	12	12	4	190
02	19	860804	18.52	55	64	05	12	12	4	190
02	20	860804	18.52	64	05	55	12	12	4	190
02	21	860804	18.52	05	55	64	03	12	4	190
02	22	860804	18.52	55	64	05	03	12	4	190
02	23	860804	18.52	64	05	55	03	12	4	190
02	24	860804	18.52	05	55	64	03	01	4	190
02	25	860804	18.52	63	61	38	03	01	4	14 42 N
02	26	860804	18.52	61	38	63	03	01	4	122 35 W
02	27	860804	18.52	38	63	61	03	01	4	6.17
02	28	860804	18.52	63	61	38	03	01	4	14 33 N
02	29	860804	18.52	55	64	05	03	01	4	190
02	30	860804	18.52	64	05	55	03	01	5	190
02	31	860804	18.52	63	61	38	03	02	5	5.25

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes		Sun Position	Beauf. No.	Position (Deg.)	Longitude	KM In Leg
				Left	Right	Horz.	Vert.			
02	32	860804	18.52	55	64	05	03	02	5	190
02	33	860804	18.52	64	05	55	03	02	5	190
02	34	860804	18.52	05	55	64	03	02	5	190
02	35	860804	18.52	55	64	05	03	02	5	190
02	36	860804	18.52	64	05	55	03	02	5	190
02	37	860804	18.52	05	55	64	03	03	5	190
01	01	860805	18.52	05	55	64	09	03	5	190
01	02	860805	18.52	55	64	05	09	03	5	190
01	03	860805	18.52	64	05	55	09	02	5	190
02	01	860805	18.52	61	63	38	09	02	5	190
02	02	860805	18.52	63	38	61	63	61	5	190
02	03	860805	18.52	61	38	61	55	55	5	190
02	04	860805	18.52	38	61	65	38	61	6	190
02	05	860805	18.52	61	65	38	61	61	6	190
02	06	860805	18.52	65	38	61	61	61	6	190
02	07	860805	18.52	65	38	61	09	01	6	190
02	08	860805	18.52	38	61	65	09	01	6	190
02	09	860805	18.52	55	64	05	09	01	6	190
02	10	860805	18.52	64	05	55	09	01	6	190
02	11	860805	18.52	05	55	64	09	01	6	190
02	12	860805	18.52	55	64	05	09	12	6	190
02	13	860805	18.52	64	05	55	12	12	6	190
02	14	860805	18.52	05	55	64	12	12	6	190
02	15	860805	18.52	05	55	64	12	12	6	190
03	01	860805	18.52	38	61	65	38	12	5	190
03	02	860805	18.52	61	65	38	61	12	5	190
03	03	860805	18.52	65	38	61	65	02	01	4
03	04	860805	18.52	38	61	65	38	03	01	4
04	01	860805	18.52	61	65	38	03	01	5	190
04	02	860805	18.52	55	64	05	03	01	5	190
04	03	860805	18.52	55	64	05	03	01	5	190
05	01	860805	18.52	64	05	55	64	03	02	5
05	02	860805	18.52	05	55	64	03	02	5	190
05	03	860805	18.52	05	55	64	05	03	02	5
05	04	860805	18.52	55	64	05	05	03	02	5
05	05	860805	18.52	64	05	55	03	02	5	190
05	06	860805	18.52	63	61	38	03	02	5	190

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes			Sun Position Horz. Vert.	Beauf. No.	Course (Deg.)	Position Latitude Longitude		KM In Leg
				Left	Right	Rec.						
05	07	860805	18.52	61	38	63	03	02	4	190		6.17
05	08	860805	18.52	38	63	61	03	02	4	190		1.23
05	09	860805	18.52	38	63	61	03	02	4	190		0.62
05	10	860805	18.52	38	63	61	03	02	4	190		4.32
05	11	860805	18.52	63	61	38	03	03	4	190	10 42 N	123 29 W
05	12	860805	18.52	61	38	63	03	03	4	190	10 40 N	123 29 W
05	13	860805	18.52	61	38	63	03	03	4	190	10 34 N	123 33 W
01	01	860806	18.52	63	61	38			4	190	08 58 N	123 48 W
01	02	860806	18.52	61	38	63			4	190	08 54 N	123 53 W
02	01	860806	18.52	38	63	61			4	190		6.17
02	02	860806	18.52	63	61	38			4	190		6.17
02	03	860806	18.52	61	38	63	09	02	4	190		2.16
03	01	860806	18.52	55	64	05	09	02	4	190	08 39 N	123 42 W
03	02	860806	18.52	55	64	05	09	02	4	190		2.16
03	03	860806	18.52	64	05	55	09	02	4	190	08 35 N	123 42 W
03	04	860806	18.52	05	55	64	09	01	4	190		6.79
03	05	860806	18.52	55	64	05	09	01	5	190		6.17
03	06	860806	18.52	64	05	55	09	01	5	190		1.54
03	07	860806	18.52	64	05	55	09	01	5	190	08 25 N	123 44 W
04	01	860806	18.52	63	61	38	09	12	5	190		0.31
04	02	860806	18.52	61	38	63	09	12	5	190	08 15 N	123 45 W
04	03	860806	18.52	38	63	61	12	12	5	190		6.17
04	04	860806	18.52	63	61	38	12	12	5	190		2.47
05	01	860806	18.52	63	61	38	12	12	5	190	08 07 N	123 48 W
05	02	860806	18.52	61	38	63	12	12	5	190		6.17
05	03	860806	18.52	38	63	61	12	12	5	190		1.23
05	04	860806	18.52	55	64	05	12	12	5	190		7.10
05	05	860806	18.52	64	05	55			5	190	07 57 N	123 50 W
05	06	860806	18.52	05	55	64	12	12	5	190		2.16
01	01	860808	18.52	61	05	38	09	03	5	180	02 03 N	125 21 W
01	02	860808	18.52	61	05	63	09	03	5	180		4.01
01	03	860808	18.52	63	38	61	09	03	5	173		2.47
01	04	860808	18.52	63	38	61	09	03	5	173		3.70
01	05	860808	18.52	38	61	63	09	03	5	173		6.17
01	06	860808	18.52	61	63	38	61	09	5	173		6.17
01	07	860808	18.52	63	38	61	63	09	5	173		6.17
01	08	860808	18.52	38	61	63	05	05	6	168		1.23
02	01	860808	18.52	55	64							6.79

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes			Sun Position Horz. Vert.	Beauf. No.	Course (Deg.)	Position Latitude Longitude		KM In Leg	
				Left	Right	Rec.							
02	02	860808	18.52	55	64	05	02	6	168	01 40 N	125 21 W	0.31	
03	01	860808	18.52	55	64	05	04	4	168	00 34 N	125 17 W	6.17	
03	02	860808	18.52	64	05	55	04	4	168	00 29 N	125 16 W	2.47	
04	01	860808	18.52	64	05	55	04	4	168	00 28 N	125 16 W	2.16	
04	02	860808	18.52	05	55	64	04	4	168			6.17	
04	03	860808	18.52	55	64	05	04	4	168	00 21 N	125 15 W	6.79	
04	04	860808	18.52	55	64	05	04	4	168	00 48 S	125 02 W	0.31	
01	01	860809	18.52	64	55	38	12	3	257			6.17	
01	02	860809	18.52	55	38	64	12	3	257			6.17	
01	03	860809	18.52	38	64	55	12	3	257			6.17	
01	04	860809	18.52	64	55	38	12	3	257	00 51 S	125 11 W	6.17	
01	05	860809	18.52	55	38	64	12	3	257			6.17	
01	06	860809	18.52	38	64	55	12	3	257			1.85	
02	01	860809	18.52	61	63	05	12	3	257	00 53 S	125 21 W	6.17	
02	02	860809	18.52	63	05	61	02	01	3	257		1.23	
02	03	860809	18.52	63	05	61	02	01	3	257	00 54 S	125 28 W	3.09
03	01	860809	18.52	63	05	61	02	01	3	257	00 55 S	125 31 W	0.62
03	02	860809	18.52	05	61	63	02	01	3	257	00 55 S	125 31 W	6.17
03	03	860809	18.52	61	63	05	02	01	3	257			
03	04	860809	18.52	63	05	61	02	01	3	257			
03	05	860809	18.52	55	64	38	02	01	3	257	00 58 S	125 41 W	6.17
03	06	860809	18.52	64	38	55	02	01	3	257			
03	07	860809	18.52	05	61	63	02	02	3	257	01 00 S	125 50 W	6.79
03	08	860809	18.52	38	55	64	01	01	3	257			
03	09	860809	18.52	55	64	38	01	02	3	257			
03	10	860809	18.52	64	38	55	01	02	3	257	01 03 S	126 02 W	3.40
04	01	860809	18.52	63	61	05	01	02	3	257	01 04 S	126 05 W	1.85
04	02	860809	18.52	63	61	05	11	02	3	315			
04	03	860809	18.52	63	61	05	01	02	3	257			
04	04	860809	18.52	63	61	05	01	03	3	257	01 04 S	126 10 W	0.31
01	01	860810	18.52	05	61	63	06	03	2	265	01 36 S	127 48 W	6.17
01	02	860810	18.52	61	63	05	06	03	2	265	01 42 S	128 07 W	7.10
02	01	860810	18.52	55	64	38	06	01	3	265			
02	02	860810	18.52	64	38	55	06	01	3	262	01 46 S	128 15 W	9.57
03	01	860810	18.52	61	63	05	61	05	3	262	01 47 S	128 17 W	6.17
03	02	860810	18.52	63	05	55	55	05	3	262			
03	03	860810	18.52	38	55	55	64	05	3	262		4.63	

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes			Sun Position Horz.	Position Vert.	Beauf. No.	Course (Deg.)	Latitude Longitude	KM In Leg	
				Left	Right	Rec.							
03	04	860810	18.52	63	61	05	12	12	3	262		10.49	
03	05	860810	18.52	61	63	05	12	12	3	264	01 46 S	128 35 W	
04	01	860810	18.52	63	61	05	12	12	3	264	01 47 S	128 42 W	
04	02	860810	18.52	63	61	05	01	01	3	264	01 48 S	128 50 W	
04	03	860810	18.52	55	38	64	55	01	01	275	01 51 S	128 55 W	
04	04	860810	18.52	38	64	55	01	01	3	264	01 48 S	128 55 W	
05	01	860810	18.52	38	64	55	01	01	2	275	01 51 S	128 55 W	
06	01	860810	18.52	55	38	64	55	01	01	3	275	01 51 S	128 57 W
06	02	860810	18.52	38	64	55	01	01	3	275	01 51 S	128 57 W	
06	03	860810	18.52	63	61	05	05	01	01	3	275	01 50 S	129 15 W
06	04	860810	18.52	61	61	05	63	01	01	3	275	01 50 S	129 15 W
06	05	860810	18.52	05	63	61	01	02	3	275		6.17	
06	06	860810	18.52	63	61	05	05	01	02	3	275		6.17
06	07	860810	18.52	61	61	05	63	01	02	3	275		6.17
06	08	860810	18.52	05	63	61	01	02	3	275		6.17	
06	09	860810	18.52	55	64	38	55	12	02	3	275	01 48 S	129 25 W
06	10	860810	18.52	64	38	55	55	12	02	3	275		1.85
06	11	860810	18.52	64	38	55	01	02	3	257		5.56	
06	12	860810	18.52	55	38	64	01	03	3	257	01 49 S	129 30 W	
01	01	860811	18.52	55	64	38	11	03	4	092	02 03 S	130 37 W	
01	02	860811	18.52	64	38	55	11	02	4	092		6.17	
01	03	860811	18.52	38	55	64	11	02	4	092		5.56	
01	04	860811	18.52	38	55	64	38	11	02	4	092	02 03 S	130 25 W
01	05	860811	18.52	55	64	38	55	11	01	4	092		0.62
01	06	860811	18.52	64	38	55	64	11	01	4	092		6.17
01	07	860811	18.52	64	38	55	11	01	4	092		3.70	
01	08	860811	18.52	38	55	64	11	01	4	092		2.47	
01	09	860811	18.52	63	61	05	11	01	5	092		6.17	
02	01	860811	18.52	63	61	05	63	11	01	5	096	02 01 S	130 13 W
03	02	860811	18.52	61	61	05	63	11	01	5	096		4.32
03	03	860811	18.52	05	63	61	11	01	5	096		4.01	
03	04	860811	18.52	55	38	64	11	01	5	096		2.16	
03	05	860811	18.52	38	64	55	11	01	5	096	02 02 S	130 04 W	
03	06	860811	18.52	64	55	38	11	01	5	096	02 03 S	129 58 W	
03	07	860811	18.52	55	38	64	11	01	5	096	02 03 S	129 55 W	

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes		Sun Position	Beauf. No.	Course (Deg.)	Position	KM In Leg
				Left	Right	Horz.	Vert.	Latitude	Longitude	
03	08	860811	18.52	64	55	38	09	12	5	096
03	09	860811	18.52	63	61	05	09	12	5	096
03	10	860811	18.52	61	05	63	09	12	5	096
03	11	860811	18.52	05	63	61	12	12	5	096
03	12	860811	18.52	63	61	05	12	12	5	096
03	13	860811	18.52	61	05	63	12	12	5	096
03	14	860811	18.52	05	63	61	07	01	5	096
03	15	860811	18.52	55	64	38	07	01	5	096
03	16	860811	18.52	64	38	55	07	01	5	096
03	17	860811	18.52	63	61	05	07	01	5	096
03	18	860811	18.52	64	38	55	07	01	5	096
03	19	860811	18.52	38	55	64	07	01	5	096
03	20	860811	18.52	55	64	38	07	02	5	096
03	21	860811	18.52	64	38	55	07	02	5	096
03	22	860811	18.52	63	05	61	07	02	5	096
03	23	860811	18.52	63	05	61	07	02	5	096
03	24	860811	18.52	05	61	63	07	02	5	096
04	01	860811	18.52	61	63	05	07	03	5	096
04	02	860811	18.52	63	05	61	07	03	5	096
04	03	860811	18.52	63	05	61	07	03	5	096
01	01	860812	18.52	61	63	05	11	03	6	095
01	02	860812	18.52	63	38	61	11	03	6	095
01	03	860812	18.52	05	61	63	11	03	6	095
01	04	860812	18.52	05	61	63	11	03	6	095
01	01	860813	18.52	55	38	63	11	03	4	091
01	02	860813	18.52	38	63	55	38	63	5	091
01	03	860813	18.52	63	55	38	63	11	03	091
01	04	860813	18.52	55	38	63	55	38	5	091
01	05	860813	18.52	38	63	55	63	55	5	091
02	01	860813	18.52	64	05	61	07	01	5	091
02	02	860813	18.52	64	05	61	07	01	5	091
02	03	860813	18.52	05	61	64	05	07	01	5
02	04	860813	18.52	61	64	05	07	01	5	091
02	05	860813	18.52	61	64	05	05	01	5	091
02	06	860813	18.52	64	05	61	05	01	5	091
02	07	860813	18.52	05	61	64	05	07	01	5
02	08	860813	18.52	61	64	05	05	01	5	091

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes			Sun Position Horz. Vert.	Beauf. No.	Course (Deg.)	Position Latitude Longitude	KM In Leg
				Left	Right	Rec.					
05	03	860815	18.52	63	55	38	09	12	6	107	1.23
06	01	860815	18.52	63	55	38	09	12	6	107	1.85
06	02	860815	18.52	64	61	05	09	12	6	107	6.17
06	03	860815	18.52	61	05	64	09	01	6	107	6.17
06	04	860815	18.52	05	64	61	09	01	6	107	6.17
06	05	860815	18.52	64	61	05	07	01	6	107	6.17
06	06	860815	18.52	61	05	64	07	01	6	107	6.17
06	07	860815	18.52	05	64	61	06	01	6	107	6.17
06	08	860815	18.52	55	63	38	06	01	6	107	6.17
06	09	860815	18.52	63	38	55	06	01	6	107	6.17
06	10	860815	18.52	38	55	63	06	01	6	107	3.70
06	11	860815	18.52	64	61	05	06	01	6	107	7.41
06	12	860815	18.52	55	63	38	06	02	6	107	6.17
07	01	860815	18.52	63	38	55	06	02	5	107	3.70
07	02	860815	18.52	64	61	05	06	02	5	107	6.17
07	03	860815	18.52	61	05	64	06	02	5	107	6.17
07	04	860815	18.52	05	64	61	06	03	5	107	4.01
07	05	860815	18.52	05	64	61	06	03	5	107	0.31
01	01	860816	18.52	64	61	05	11	03	5	106	6.17
01	02	860816	18.52	61	05	64	11	03	5	106	1.23
01	03	860816	18.52	61	05	64	11	03	5	106	2.16
01	04	860816	18.52	61	05	64	11	02	5	106	2.78
01	05	860816	18.52	05	64	61	11	02	5	106	4.63
01	06	860816	18.52	05	64	61	11	02	5	106	0.93
01	07	860816	18.52	05	64	61	11	02	5	106	0.93
02	01	860816	18.52	64	61	05	64	05	5	106	4.01
02	02	860816	18.52	61	05	64	61	05	5	106	4.01
02	03	860816	18.52	61	05	64	61	05	5	106	4.01
02	04	860816	18.52	63	55	38	11	01	5	106	6.17
02	05	860816	18.52	55	38	63	11	01	5	106	4.94
02	06	860816	18.52	38	63	55	11	01	5	105	3.70
02	07	860816	18.52	38	63	55	11	01	5	104	1.23
02	08	860816	18.52	63	55	38	11	01	5	104	6.17
02	09	860816	18.52	55	38	63	11	01	5	105	1.23
03	01	860816	18.52	38	63	55	11	01	5	104	6.17
03	02	860816	18.52	61	64	05	11	12	5	104	1.23
03	03	860816	18.52	64	05	61	11	12	5	104	6.17

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes			Sun Position Horz. Vert.	Beauf. Course No. (Deg.)	Position Latitude Longitude		KM In Leg				
				Left	Right	Rec.			(Deg.)	Latitude	Longitude				
05	03	860815	18.52	63	55	38	09	12	6	107	02 46 S	117 09 W	1.23		
06	01	860815	18.52	63	55	38	09	12	6	107	02 46 S	117 09 W	1.85		
06	02	860815	18.52	64	61	05	09	12	6	107	02 47 S	117 06 W	6.17		
06	03	860815	18.52	61	05	64	09	01	6	107	02 47 S	117 06 W	6.17		
06	04	860815	18.52	64	61	05	09	01	6	107	02 47 S	117 06 W	6.17		
06	05	860815	18.52	64	61	05	07	01	6	107	02 49 S	116 59 W	6.17		
06	06	860815	18.52	61	05	64	07	01	6	107	02 49 S	116 59 W	6.17		
06	07	860815	18.52	64	61	06	01	01	6	107	02 52 S	116 50 W	6.17		
06	08	860815	18.52	55	63	38	06	01	6	107	02 52 S	116 50 W	6.17		
06	09	860815	18.52	63	38	55	06	01	6	107	02 52 S	116 50 W	6.17		
06	10	860815	18.52	38	55	63	06	01	6	107	02 52 S	116 50 W	3.70		
06	11	860815	18.52	64	61	05	06	01	6	107	02 55 S	116 43 W	7.41		
06	12	860815	18.52	55	63	38	06	02	6	107	02 55 S	116 43 W	1.85		
07	01	860815	18.52	63	38	55	06	02	5	107	03 00 S	116 30 W	3.70		
07	02	860815	18.52	64	61	05	06	02	5	107	03 00 S	116 30 W	6.17		
07	03	860815	18.52	61	05	64	06	02	5	107	03 00 S	116 30 W	4.01		
07	04	860815	18.52	05	64	61	06	03	5	107	03 00 S	116 30 W	0.31		
07	05	860815	18.52	05	64	61	06	03	5	107	03 00 S	116 30 W	6.17		
01	01	860816	18.52	64	61	05	11	03	5	106	03 40 S	114 45 W	1.23		
01	02	860816	18.52	61	05	64	11	03	5	106	03 40 S	114 45 W	2.16		
01	03	860816	18.52	61	05	64	11	03	5	106	03 42 S	114 40 W	2.78		
01	04	860816	18.52	61	05	64	11	02	5	106	03 42 S	114 40 W	4.63		
01	05	860816	18.52	05	64	61	11	02	5	106	03 43 S	114 33 W	0.93		
01	06	860816	18.52	05	64	61	05	04	5	106	03 43 S	114 33 W	0.93		
01	07	860816	18.52	05	64	61	11	02	5	106	03 45 S	114 30 W	4.01		
02	01	860816	18.52	64	61	05	64	05	5	106	03 45 S	114 30 W	6.17		
02	02	860816	18.52	64	61	05	64	05	5	106	03 47 S	114 23 W	6.17		
02	03	860816	18.52	61	05	64	38	63	11	01	5	105	03 47 S	114 23 W	4.94
02	04	860816	18.52	63	55	38	63	55	11	01	5	105	03 47 S	114 23 W	3.70
02	05	860816	18.52	55	38	63	55	38	11	01	5	105	03 54 S	114 18 W	1.23
02	06	860816	18.52	38	63	55	63	55	11	01	5	104	03 55 S	114 14 W	6.17
02	07	860816	18.52	38	63	55	63	55	11	01	5	104	03 55 S	114 14 W	6.17

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes		Sun Position Horz.	Beauf. No.	Course (Deg.)	Latitude	Longitude	KM In Leg
				Left	Right						
03	04	860816	18.52	05	61	64	09	01	5	104	6.17
03	05	860816	18.52	61	64	05	09	01	5	104	6.17
03	06	860816	18.52	64	05	61	12	12	5	104	6.17
03	07	860816	18.52	05	61	64	12	12	5	104	6.17
03	08	860816	18.52	61	64	05	12	12	5	104	3.09
03	09	860816	18.52	55	63	38	12	12	5	104	6.17
03	10	860816	18.52	63	38	55	12	12	5	104	6.17
03	11	860816	18.52	38	55	63	12	12	5	104	6.17
03	12	860816	18.52	55	63	38	06	12	5	104	6.17
03	13	860816	18.52	63	38	55	06	12	5	104	6.17
03	14	860816	18.52	38	55	63	06	01	4	104	6.17
03	15	860816	18.52	64	61	05	06	01	4	104	6.17
03	16	860816	18.52	61	05	64	07	01	4	104	6.17
03	17	860816	18.52	05	64	61	06	02	4	104	6.17
03	18	860816	18.52	63	38	55	06	02	4	104	4.94
04	01	860816	18.52	64	61	05	06	02	4	104	2.78
05	01	860816	18.52	64	61	05	06	02	4	104	1.85
05	02	860816	18.52	61	05	64	06	02	4	104	3.40
05	03	860816	18.52	63	38	55	06	02	4	104	6.17
05	04	860816	18.52	38	55	63	06	03	4	104	6.17
05	05	860816	18.52	55	63	38	06	03	4	104	1.85
05	06	860816	18.52	55	63	38	06	03	4	104	6.17
01	01	860817	18.52	63	55	38	10	03	4	102	0.31
01	02	860817	18.52	64	61	05	11	02	4	102	1.23
01	03	860817	18.52	63	55	38	11	02	4	102	5.86
01	04	860817	18.52	55	38	63	11	01	4	102	6.17
01	05	860817	18.52	38	63	55	11	02	4	102	6.79
01	06	860817	18.52	63	55	38	11	02	4	102	11.42
01	07	860817	18.52	61	64	05	11	02	4	102	6.17
01	08	860817	18.52	64	05	61	11	01	4	105	6.17
01	09	860817	18.52	05	61	64	11	01	4	105	6.48
01	10	860817	18.52	61	64	05	11	01	4	105	8.33
01	11	860817	18.52	64	05	61	11	01	4	105	7.10
01	12	860817	18.52	05	61	64	11	01	4	105	6.17
01	13	860817	18.52	55	38	63	11	01	4	105	8.33
01	14	860817	18.52	38	63	55	11	01	4	105	7.10
01	15	860817	18.52	61	64	05	12	12	4	105	6.17

Table 2. (continued)

series	Leg	Date	Speed Km/Hr	Observer Codes			Sun Position Horz.	Position No. (Deg.)	Beauf. Course Latitude	Position Longitude	KM In Leg
				Left	Right	Rec.					
01	16	860817	18.52	63	55	38	12	12	4	105	04 44 S 110 48 W 6.17
01	17	860817	18.52	55	38	63	12	12	4	105	04 44 S 110 41 W 5.25
02	01	860817	18.52	61	65	64	12	12	4	108	04 44 S 110 41 W 4.63
02	02	860817	18.52	61	65	64			4	108	
02	03	860817	18.52	65	64	61			4	108	
02	04	860817	18.52	65	64	61			4	108	
03	01	860817	18.52	65	64	61			4	108	
03	02	860817	18.52	64	61	65			4	108	
03	03	860817	18.52	61	65	64			4	108	
03	04	860817	18.52	65	64	61			4	108	
03	05	860817	18.52	65	64	61			4	116	
03	06	860817	18.52	64	61	65			4	116	
03	07	860817	18.52	55	63	38	06	01	3	116	
03	08	860817	18.52	55	63	38	06	01	3	110	
03	09	860817	18.52	63	38	55	06	01	3	110	
04	01	860817	18.52	63	38	55			3	110	
04	02	860817	18.52	38	55	63			3	110	
05	01	860817	18.52	38	55	63			3	110	
06	01	860817	18.52	64	61	05	06	02	3	118	
06	02	860817	18.52	61	05	64	06	02	3	118	
06	03	860817	18.52	05	64	61	06	02	3	118	
06	04	860817	18.52	64	61	05	05	03	3	118	
06	05	860817	18.52	61	05	64	05	03	3	118	
06	06	860817	18.52	61	05	64	05	03	3	118	
01	01	860818	18.52	61	64	05	11	03	4	100	05 12 S 108 24 W 4.63
01	02	860818	18.52	55	63	38	11	03	4	100	05 14 S 108 16 W 1.23
02	01	860818	18.52	64	05	61	11	03	4	100	05 14 S 108 16 W 6.17
02	02	860818	18.52	05	61	64	11	02	4	100	05 14 S 108 12 W 6.17
02	03	860818	18.52	61	64	05	11	02	4	100	05 14 S 108 12 W 4.63
02	04	860818	18.52	64	05	61	11	02	4	100	05 16 S 108 03 W 1.54
02	05	860818	18.52	63	38	55	11	01	5	100	05 16 S 108 03 W 6.17
02	06	860818	18.52	63	38	55	11	01	5	100	05 17 S 107 54 W 7.72
02	07	860818	18.52	38	55	63	11	01	5	100	05 17 S 107 54 W 6.17
02	08	860818	18.52	55	63	38	11	01	5	100	05 17 S 107 54 W 7.10
02	09	860818	18.52	63	38	55	11	01	5	100	05 17 S 107 54 W 6.17
02	10	860818	18.52	38	55	63	11	01	5	100	05 17 S 107 54 W 7.72

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes			Sun Position Horz. Vert.	Beauf. No.	Course (Deg.)	Position			KM In Leg	
				Left	Right	Rec.				Latitude	Longitude			
03	01	860818	18.52	61	05	64	11	01	5	100	05 16 S	107 49 W	6.17	
03	02	860818	18.52	61	05	64	10	01	5	100	05 16 S	107 49 W	6.17	
03	03	860818	18.52	64	05	61	10	12	5	100	05 18 S	107 39 W	5.56	
03	04	860818	18.52	63	38	55	10	12	5	100	05 17 S	107 36 W	6.48	
03	05	860818	18.52	05	61	64	10	12	5	100	05 17 S	107 36 W	4.01	
04	01	860818	18.52	61	64	05	12	12	5	100	05 16 S	107 32 W	3.09	
04	02	860818	18.52	55	38	63	12	12	5	100	05 16 S	107 32 W	6.17	
04	03	860818	18.52	38	63	55	12	12	5	100	05 16 S	107 32 W	6.48	
04	04	860818	18.52	63	55	38	12	12	4	100	05 16 S	107 32 W	6.17	
04	05	860818	18.52	55	38	63	12	12	4	100	05 16 S	107 32 W	6.17	
04	06	860818	18.52	38	63	55	07	12	4	100	05 17 S	107 23 W	7.72	
04	07	860818	18.52	63	55	38	06	01	4	100	05 17 S	107 23 W	4.01	
04	08	860818	18.52	64	61	05	06	01	4	100	05 18 S	107 15 W	6.48	
04	09	860818	18.52	61	05	64	06	01	4	100	05 18 S	107 15 W	6.17	
04	10	860818	18.52	05	64	61	06	01	4	100	05 19 S	107 10 W	3.40	
04	11	860818	18.52	05	64	61	06	01	4	100	05 19 S	107 10 W	2.78	
04	12	860818	18.52	64	61	05	06	01	4	100	05 19 S	107 07 W	6.17	
04	13	860818	18.52	61	05	64	06	02	4	100	05 19 S	107 07 W	5.86	
04	14	860818	18.52	05	64	61	06	02	4	100	05 20 S	107 00 W	3.09	
05	01	860818	18.52	55	38	63	06	02	4	100	05 22 S	106 54 W	0.93	
06	01	860818	18.52	55	38	63	06	03	4	100	05 23 S	106 48 W	6.17	
07	01	860818	18.52	38	63	55	06	03	4	100	05 23 S	106 50 W	0.31	
07	02	860818	18.52	63	55	38	06	03	4	100	04 42 S	105 15 W	6.17	
07	03	860818	18.52	63	55	61	38	01	03	5	064	04 42 S	105 15 W	6.17
01	01	860819	18.52	55	61	38	55	01	03	5	064	04 34 S	105 03 W	1.54
01	02	860819	18.52	61	38	55	61	01	03	5	064	04 34 S	105 03 W	4.63
01	03	860819	18.52	38	55	61	01	03	6	064	04 34 S	105 03 W	6.17	
01	04	860819	18.52	63	64	05	01	02	6	064	04 34 S	105 03 W	5.86	
01	05	860819	18.52	38	55	61	01	02	6	064	04 34 S	105 03 W	0.31	
01	06	860819	18.52	38	55	61	01	03	6	064	04 34 S	105 03 W	6.17	
01	07	860819	18.52	55	61	38	01	02	6	064	04 34 S	105 03 W	6.17	
01	08	860819	18.52	61	38	55	01	02	6	064	04 34 S	105 03 W	1.54	
01	09	860819	18.52	61	38	55	01	02	6	064	04 34 S	105 03 W	1.85	
01	01	860821	18.52	63	64	05	03	04	4	094	01 47 S	098 26 W	6.17	
01	02	860821	18.52	64	05	63	03	04	4	094	01 47 S	098 26 W	6.17	
01	03	860821	18.52	05	63	64	11	02	4	094	01 48 S	098 22 W	1.54	
01	04	860821	18.52	05	63	64	11	02	4	094	01 48 S	098 22 W	1.85	

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes		Sum Position Horz. Vert.	Beauf. No.	Course (Deg.)	Position Latitude Longitude		KM In Leg
				Left	Right				Lat.	Long.	
01	05	860821	18.52	05	63	64	4	094			2.78
01	06	860821	18.52	63	64	05	4	094			6.17
01	07	860821	18.52	64	05	63	4	094			6.17
01	08	860821	18.52	05	63	64	4	094	01 49 S	098 14 W	6.17
01	09	860821	18.52	55	38	61	4	094			3.09
01	10	860821	18.52	38	61	55	4	094			1.54
01	11	860821	18.52	38	61	55	11	01			1.54
01	12	860821	18.52	38	61	55	11	01	4	105	
01	13	860821	18.52	61	55	38	11	01	4	105	01 50 S
01	14	860821	18.52	55	38	61	11	01	4	105	098 06 W
01	15	860821	18.52	38	61	55	11	01	4	105	
01	16	860821	18.52	61	55	38	09	12	3	105	01 52 S
01	17	860821	18.52	55	38	61			3	105	097 57 W
01	18	860821	18.52	55	38	61			3	105	
01	19	860821	18.52	63	64	05			3	105	
02	01	860821	18.52	63	64	05			3	105	01 56 S
02	02	860821	18.52	64	05	63			3	105	097 46 W
02	03	860821	18.52	64	05	63			3	105	
02	04	860821	18.52	05	63	64			3	105	
02	05	860821	18.52	63	64	05			3	105	
02	06	860821	18.52	64	05	63			3	105	
02	07	860821	18.52	55	61	38	55	61	3	105	
02	08	860821	18.52	61	38	55	61	38	3	105	
02	09	860821	18.52	38	55	61			3	105	
02	10	860821	18.52	38	55	61			3	105	
03	01	860821	18.52	55	61	38			3	105	
03	02	860821	18.52	61	38	55			3	105	
03	03	860821	18.52	63	64	05			3	105	
03	04	860821	18.52	64	05	63			3	105	
03	05	860821	18.52	05	63	64			3	105	
03	06	860821	18.52	55	61	38			3	105	
03	07	860821	18.52	63	64	05			3	105	
03	08	860821	18.52	64	05	63			3	105	
03	09	860821	18.52	55	61	38			3	105	
04	01	860821	18.52	55	61	38			3	105	
01	01	860822	18.52	55	61	38	11	03	2	103	02 11 S
01	02	860822	18.52	55	61	38	11	03	2	101	02 45 S

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes			Sun Position Horz. Vert.	Beauf. No.	Course (Deg.)	Position		KM In Leg
				Left	Right	Rec.				Latitude	Longitude	
01	03	860822	18.52	63	05	65	11	03	2	101		6.17
01	04	860822	18.52	61	38	55	11	02	2	101		2.78
02	01	860822	18.52	61	38	55	11	02	2	101	02 50 S	1.54
02	02	860822	18.52	38	55	61	11	02	2	101	02 49 S	6.17
02	03	860822	18.52	55	61	38	11	02	2	101	02 49 S	6.17
02	04	860822	18.52	61	38	55	11	02	2	101	02 49 S	4.32
02	05	860822	18.52	63	64	05	11	02	3	101		6.17
02	06	860822	18.52	64	05	63	11	02	3	101		1.23
02	07	860822	18.52	64	05	63	11	02	3	101	02 52 S	4.94
02	08	860822	18.52	05	63	64	11	01	3	101		6.17
02	09	860822	18.52	63	64	05	11	01	3	101		6.79
02	10	860822	18.52	64	05	63	11	01	3	101	02 55 S	5.56
03	01	860822	18.52	05	63	64	11	01	3	101	02 56 S	5.56
03	02	860822	18.52	55	61	38	11	12	3	101	02 56 S	6.17
03	03	860822	18.52	61	38	55	11	12	3	101	02 58 S	6.17
03	04	860822	18.52	38	55	61	12	12	3	101	02 58 S	1.85
03	05	860822	18.52	38	55	61	05	12	3	101		3.70
03	06	860822	18.52	63	64	05	12	12	3	101		6.17
03	07	860822	18.52	55	61	38	12	12	3	101	03 00 S	3.09
03	08	860822	18.52	61	38	55	12	12	3	101	03 00 S	4.01
03	09	860822	18.52	63	64	05	12	12	3	101	03 02 S	1.54
03	10	860822	18.52	63	64	05	12	12	3	101	03 02 S	4.63
03	11	860822	18.52	64	05	63	12	12	3	101	03 04 S	6.17
03	12	860822	18.52	64	05	63	12	12	4	095	03 04 S	3.09
03	13	860822	18.52	05	63	64	12	12	4	095	03 04 S	3.09
03	14	860822	18.52	63	64	05	12	01	4	095	03 04 S	3.09
03	15	860822	18.52	64	05	63	12	01	4	095	03 05 S	6.17
03	16	860822	18.52	64	05	63	12	01	4	095	03 05 S	6.17
03	17	860822	18.52	05	63	64	12	01	4	095	03 05 S	6.17
03	18	860822	18.52	55	38	61	11	02	3	095	03 05 S	6.17
03	19	860822	18.52	38	61	55	38	61	3	095	03 06 S	6.17
03	20	860822	18.52	61	55	38	61	55	3	095	03 06 S	5.25
03	21	860822	18.52	55	38	61	55	38	3	095	03 07 S	6.17
03	22	860822	18.52	38	61	55	38	61	3	095	03 08 S	6.17
03	23	860822	18.52	61	55	38	61	55	3	095	03 08 S	6.17
03	24	860822	18.52	63	64	05	63	12	3	095	03 08 S	6.17
03	25	860822	18.52	64	05	63	12	01	3	095	03 08 S	6.17

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes			Sun Position Horz.	Position Vert.	Beauf. No. (Deg.)	Latitude Longitude	Position In Leg	KM
				Left	Right	Rec.						
03	26	860822	18.52	05	63	64	06	02	3	095		6.17
03	27	860822	18.52	63	64	05	06	02	3	095		6.17
03	28	860822	18.52	64	05	63	06	03	3	095	03 10 S	0.31
03	29	860822	18.52	64	05	63	38		5	098	03 36 S	1.85
01	01	860823	18.52	63	64	05	61		5	098	092 12 W	4.63
01	02	860823	18.52	63	64	05	38		5	098		5.25
01	03	860823	18.52	55	38	61	05	63	5	098	03 38 S	6.17
01	04	860823	18.52	64	05	63	64	05	5	098	092 13 W	6.17
01	05	860823	18.52	05	63	64	05	64	5	098		6.17
01	06	860823	18.52	63	64	05	64	05	5	098	03 41 S	6.17
01	07	860823	18.52	64	05	63	64	05	5	098	092 05 W	7.72
01	08	860823	18.52	38	61	55	55	55	5	098		6.79
01	09	860823	18.52	61	55	38	61	55	5	098		6.17
01	10	860823	18.52	55	38	61	55	38	5	098	03 42 S	6.17
01	11	860823	18.52	38	61	55	61	55	5	098	091 55 W	6.17
01	12	860823	18.52	61	55	38	61	55	5	098		6.17
01	13	860823	18.52	55	38	61	55	38	5	098	03 44 S	6.17
01	14	860823	18.52	05	64	63	63	63	5	098	091 46 W	6.17
01	15	860823	18.52	64	63	05	11	01	5	098		3.40
02	01	860823	18.52	64	63	05	11	12	5	098	03 45 S	1.85
02	02	860823	18.52	63	05	64	11	12	5	098		6.79
02	03	860823	18.52	55	38	61	12	12	6	098	03 47 S	5.25
02	04	860823	18.52	05	64	63	12	12	6	098	091 28 W	6.17
02	05	860823	18.52	64	63	05	12	12	6	098		6.79
02	06	860823	18.52	55	61	38	12	12	6	098	03 48 S	6.17
02	07	860823	18.52	61	38	55	12	12	6	098	091 19 W	6.17
02	08	860823	18.52	38	55	61	12	12	6	098		6.17
03	01	860823	18.52	55	61	38	12	12	6	098	01 01 S	3.09
03	02	860823	18.52	61	38	55	12	12	6	098	098 01 01 S	6.17
03	03	860823	18.52	38	55	61	07	01	5	098		7.10
03	04	860823	18.52	63	64	05	07	01	5	098	03 54 S	6.17
03	05	860823	18.52	64	05	63	07	01	5	098	090 53 W	6.79
03	06	860823	18.52	05	63	64	07	01	5	098		0.93
03	07	860823	18.52	63	64	05	07	01	5	098	03 51 S	6.17
03	08	860823	18.52	64	05	63	07	01	5	098	091 02 W	6.17
03	09	860823	18.52	05	63	64	07	02	5	098		6.79
03	10	860823	18.52	63	64	05	07	02	5	098		0.98

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes		Sun Position Horz. Vert.	Beauf. No.	Course (Deg.)	Latitude In Leg	Longitude In Leg	KM
				Left	Right	Rec.					
03	11	860823	18.52	55	61	38	07	02	5	098	6.17
03	12	860823	18.52	38	55	61	07	02	5	098	6.17
03	13	860823	18.52	61	38	55	07	03	5	098	6.17
03	14	860823	18.52	55	61	38	06	03	5	098	5.25
03	15	860823	18.52	55	61	38	06	03	5	098	0.31
01	01	860824	18.52	55	61	38	55	05	5	087	6.17
01	02	860824	18.52	61	38	55	05	05	5	087	7.10
01	03	860824	18.52	63	64	05	55	05	5	087	6.79
01	04	860824	18.52	64	05	63	55	05	5	087	2.16
01	05	860824	18.52	61	38	55	55	05	5	087	1.54
01	06	860824	18.52	61	38	55	55	05	5	085	4.94
01	07	860824	18.52	38	55	61	55	05	5	085	6.17
01	08	860824	18.52	55	61	38	55	05	5	085	3.09
01	09	860824	18.52	64	05	63	55	05	5	085	3.70
01	10	860824	18.52	64	05	63	11	02	5	085	2.47
01	11	860824	18.52	05	63	64	11	02	5	085	6.17
01	12	860824	18.52	63	64	05	11	02	5	085	6.17
01	13	860824	18.52	64	05	63	11	02	5	085	6.17
01	14	860824	18.52	05	63	64	11	01	5	085	6.17
01	15	860824	18.52	63	64	05	11	01	5	085	6.17
01	01	860824	18.52	55	61	38	07	01	5	088	7.10
02	02	860824	18.52	61	38	55	07	01	5	088	6.17
02	03	860824	18.52	38	55	61	07	01	5	088	6.17
02	04	860824	18.52	55	61	38	07	02	5	088	6.17
02	05	860824	18.52	61	38	55	61	07	5	088	3.40
02	06	860824	18.52	38	55	61	38	55	5	088	3.09
02	07	860824	18.52	63	64	05	63	05	5	088	6.17
02	08	860824	18.52	64	05	63	64	05	5	088	6.17
02	09	860824	18.52	05	63	64	05	05	5	088	5.56
02	10	860824	18.52	63	64	05	63	05	5	088	0.31
02	11	860824	18.52	63	64	05	64	05	5	088	6.17
01	01	860825	18.52	38	64	05	64	05	5	088	2.16
01	02	860825	18.52	38	64	05	63	05	5	088	5.25
01	03	860825	18.52	55	61	05	61	05	5	088	7.10
01	04	860825	18.52	61	05	55	61	05	5	088	6.17
01	05	860825	18.52	05	55	61	55	05	5	088	6.17
01	06	860825	18.52	55	61	05	61	05	5	088	6.17

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes			Sun Horz.	Position Vert.	Beauf. No.	Course (Deg.)	Position		KM In Leg
				Left	Right	Rec.					Latitude	Longitude	
01	07	860825	18.52	61	05	55	5	088	03 41 S	085 51 W	4.32		
01	08	860825	18.52	63	64	38	5	088	03 41 S	085 51 W	6.17		
01	09	860825	18.52	64	38	63	5	088	03 39 S	085 40 W	6.17		
01	10	860825	18.52	38	63	64	5	088	03 39 S	085 40 W	6.17		
01	11	860825	18.52	63	64	38	4	088	03 39 S	085 40 W	5.25		
02	01	860825	18.52	64	38	63	4	088	03 39 S	085 40 W	3.09		
02	02	860825	18.52	55	61	05	4	088	03 39 S	085 40 W	6.17		
02	03	860825	18.52	61	05	55	4	088	03 39 S	085 40 W	6.17		
02	04	860825	18.52	05	55	61	4	088	03 39 S	085 40 W	1.23		
02	05	860825	18.52	05	55	61	4	088	03 39 S	085 40 W	0.62		
02	06	860825	18.52	05	55	61	4	088	03 39 S	085 40 W	0.62		
02	07	860825	18.52	64	63	38	4	088	03 37 S	085 27 W	6.17		
02	08	860825	18.52	64	38	63	4	088	03 37 S	085 27 W	2.16		
02	09	860825	18.52	05	55	61	4	088	03 37 S	085 27 W	2.78		
02	10	860825	18.52	55	61	05	4	088	03 37 S	085 23 W	3.40		
02	11	860825	18.52	55	61	05	4	088	03 38 S	085 22 W	0.31		
03	01	860825	18.52	64	63	38	4	088	03 38 S	085 22 W	6.17		
03	02	860825	18.52	63	38	64	4	088	03 37 S	085 17 W	1.85		
03	03	860825	18.52	63	38	64	4	088	03 37 S	085 17 W	1.85		
04	01	860825	18.52	63	38	64	4	088	03 37 S	085 17 W	1.85		
05	01	860825	18.52	38	64	63	4	088	03 41 S	085 18 W	3.70		
06	01	860825	18.52	38	64	63	4	088	03 41 S	085 17 W	2.47		
06	02	860825	18.52	64	63	38	4	088	03 39 S	085 06 W	6.17		
06	03	860825	18.52	61	55	05	4	088	03 39 S	085 06 W	6.79		
06	04	860825	18.52	55	05	61	4	088	03 39 S	085 06 W	6.17		
06	05	860825	18.52	05	61	55	4	088	03 38 S	084 56 W	6.17		
06	06	860825	18.52	61	55	05	3	088	03 38 S	084 56 W	6.17		
06	07	860825	18.52	55	05	61	3	088	03 38 S	084 54 W	3.40		
07	01	860825	18.52	05	61	55	3	088	03 28 S	083 44 W	1.23		
01	02	860826	18.52	63	64	38	2	080	03 28 S	083 44 W	7.41		
02	01	860826	18.52	63	64	38	2	080	03 24 S	083 34 W	6.17		
02	02	860826	18.52	64	38	63	2	080	03 22 S	083 25 W	1.85		
03	01	860826	18.52	55	61	05	2	082	03 19 S	083 17 W	6.79		
04	01	860826	18.52	55	61	05	1	082	03 19 S	083 17 W	3.09		
04	02	860826	18.52	61	05	55	2	082	03 17 S	083 08 W	7.41		
04	03	860826	18.52	55	61	05	2	082	03 17 S	083 08 W	5.86		
04	04	860826	18.52	64	38	63	2	082	03 17 S	083 08 W	4.63		

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes	Sun Position	Beauf. No.	course (Deg.)	Position	KM In Leg	
				Left Right Rec.	Horz. Vert.			Latitude Longitude		
05	01	860826	18.52	55	61 05	2	082	03 14 S	083 02 W	5.86
05	02	860826	18.52	38	63 64	2	082	03 14 S	082 51 W	6.17
05	03	860826	18.52	63	64 38	2	082			6.17
05	04	860826	18.52	64	38 63	2	082			4.94
05	05	860826	18.52	55	61 05	2	082			1.54
06	01	860826	18.52	55	61 05	2	082	03 11 S	082 50 W	6.17
06	02	860826	18.52	61	55 12	2	082			6.17
06	03	860826	18.52	05	55 61	2	082			2.16
06	04	860826	18.52	05	55 61	2	082	03 09 S	082 42 W	4.63
07	01	860826	18.52	55	61 05	2	082	03 09 S	082 32 W	6.79
07	02	860826	18.52	63	38 64	2	082			0.62
08	01	860826	18.52	63	38 64	2	082	03 08 S	082 35 W	4.01
09	01	860826	18.52	63	38 64	2	082	03 07 S	082 31 W	1.23
09	02	860826	18.52	38	64 63	2	082			2.16
10	01	860826	14.82	38	64 63	2	082	03 06 S	082 28 W	2.47
11	01	860826	18.52	38	64 63	2	082	03 06 S	082 26 W	0.31
11	02	860826	18.52	64	63 38	2	082			0.62
11	03	860826	18.52	64	63 38	2	087	03 06 S	082 21 W	1.85
12	01	860826	18.52	63	38 64	2	087			18.52
12	02	860826	18.52	61	55 05	2	087			4.94
12	03	860826	18.52	61	05 55	2	087			5.86
12	04	860826	18.52	05	55 07	2	087	03 05 S	082 10 W	1.85
12	05	860826	18.52	05	55 61	2	087	03 04 S	082 05 W	0.31
12	06	860826	18.52	05	55 61	2	087	02 53 S	080 39 W	6.17
01	01	860904	18.52	63	05 63	2	242			6.17
01	02	860904	18.52	61	05 63	2	242			2.78
01	03	860904	18.52	05	63 61	2	242			6.17
01	04	860904	18.52	63	05 61	3	242			6.17
01	05	860904	18.52	61	05 63	3	237	03 01 S	080 52 W	6.17
02	01	860904	18.52	64	55 38	4	237			6.17
02	02	860904	18.52	55	38 64	4	237			0.00
02	03	860904	18.52	38	64 55	5	237	03 09 S	081 03 W	5.56
02	04	860904	18.52	64	55 38	5	196	04 58 S	082 20 W	6.48
01	01	860905	18.52	63	05 61	5	196			6.17
01	02	860905	18.52	55	61 05	5				
01	03	860905	18.52	64	38 63	5				

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes	Sun Position Horz. Vert.	Beauf. No.	Course (Deg.)	Position Latitude Longitude	KM In Leg
				Left Right Rec.					
01	04	860905	18.52	38	63	64	5	196	4.94
01	05	860905	18.52	38	63	64	4	196	1.23
01	06	860905	18.52	63	64	38	5	196	6.17
01	07	860905	18.52	64	38	63	5	196	7.10
01	08	860905	18.52	55	61	05	5	196	6.17
01	09	860905	18.52	61	05	55	5	196	6.17
01	10	860905	18.52	05	55	61	5	196	6.17
01	11	860905	18.52	55	61	05	5	196	6.17
01	12	860905	18.52	61	05	55	5	192	4.63
01	13	860905	18.52	61	05	55	5	192	1.54
01	14	860905	18.52	05	55	61	5	192	6.79
01	15	860905	18.52	38	64	63	5	192	6.17
01	16	860905	18.52	64	63	38	5	192	6.79
02	01	860905	18.52	55	61	05	5	192	5.25
02	02	860905	18.52	63	38	64	5	192	1.54
02	03	860905	18.52	63	38	64	5	188	3.70
02	04	860905	18.52	63	38	64	5	188	0.93
02	05	860905	18.52	38	64	63	5	188	3.70
02	06	860905	18.52	55	61	05	5	188	6.17
02	07	860905	18.52	61	05	55	5	188	6.17
02	08	860905	18.52	05	55	61	5	188	6.17
02	09	860905	18.52	55	61	05	5	188	2.47
02	10	860905	18.52	55	61	05	5	188	4.01
03	01	860905	18.52	61	05	55	5	188	6.17
03	02	860905	18.52	38	63	64	5	188	3.09
04	01	860905	18.52	38	63	64	5	188	1.54
04	02	860905	18.52	63	64	38	5	188	6.17
04	03	860905	18.52	64	38	63	5	188	5.25
04	04	860905	18.52	38	63	64	5	188	2.16
04	05	860905	18.52	63	64	38	5	188	3.09
04	06	860905	18.52	64	38	63	5	188	2.47
05	01	860905	18.52	64	38	63	5	188	3.09
05	02	860905	18.52	55	61	05	5	188	6.17
05	03	860905	18.52	61	05	55	5	188	2.16
05	04	860905	18.52	61	05	55	5	188	3.09
05	05	860905	18.52	05	55	61	5	188	2.47
05	06	860905	18.52	05	55	61	5	188	3.09

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes			Sun Position	Beauf.	Course (Deg.)	Position Latitude	Position Longitude	KM In Leg
				Left	Right	Rec.	Horz.	Vert.	No.			
05	07	860905	18.52	55	61	05	5	188	06 40 S	082 48 W	6.79	
05	08	860905	18.52	55	61	05	5	188	09 02 S	083 38 W	0.31	
01	01	860906	18.52	55	61	05	5	203	09 02 S	083 38 W	2.16	
01	02	860906	18.52	63	64	38	5	203	5	203	6.17	
01	03	860906	18.52	55	61	05	5	203	5	203	7.41	
01	04	860906	18.52	61	05	55	5	203	5	203	0.93	
01	05	860906	18.52	55	05	38	5	203	5	203	2.16	
01	06	860906	18.52	61	05	55	5	203	5	203	3.09	
01	07	860906	18.52	05	55	61	5	203	5	203	5.86	
01	08	860906	18.52	55	61	05	5	203	5	203	6.17	
01	09	860906	18.52	61	05	55	5	203	5	203	3.70	
01	10	860906	18.52	63	64	38	5	203	5	203	6.17	
01	11	860906	18.52	64	38	63	64	38	5	203	10.19	
01	12	860906	18.52	38	63	64	38	63	5	203	4.32	
02	01	860906	18.52	38	63	64	38	63	5	203	0.62	
02	02	860906	18.52	63	64	38	63	64	5	203	6.17	
02	03	860906	18.52	64	38	63	64	38	5	203	6.17	
02	04	860906	18.52	38	63	64	38	63	5	203	2.16	
02	05	860906	18.52	55	61	05	55	61	5	203	7.10	
02	06	860906	18.52	61	05	55	61	05	5	203	6.17	
02	07	860906	18.52	05	55	61	05	55	5	203	3.70	
02	08	860906	18.52	63	64	38	63	64	5	203	4.01	
02	09	860906	18.52	05	55	61	05	55	5	203	2.78	
02	10	860906	18.52	55	61	05	55	61	5	203	6.17	
02	11	860906	18.52	61	05	55	61	05	5	203	7.72	
02	12	860906	18.52	64	38	63	64	38	5	203	4.94	
02	13	860906	18.52	64	38	63	64	38	5	203	6.17	
02	14	860906	18.52	38	63	64	38	63	5	203	1.23	
02	15	860906	18.52	63	64	38	63	64	5	203	1.23	
02	16	860906	18.52	64	38	63	64	38	5	203	6.17	
02	17	860906	18.52	38	63	64	38	63	5	203	1.23	
02	18	860906	18.52	38	63	64	38	63	5	197	4.94	
02	19	860906	18.52	63	64	38	64	38	5	197	6.79	
02	20	860906	18.52	55	61	05	55	61	5	197	6.17	
02	21	860906	18.52	61	05	55	55	61	5	197	6.17	
02	22	860906	18.52	05	55	61	05	55	5	197	6.17	
02	23	860906	18.52	55	61	05	55	61	5	197	6.17	

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes	Sun Position Horz. Rec.	Beauf. Vert.	Course (Deg.)	Position Latitude Longitude	KM In Leg
				Left	Right	Rec.			
02	24	860906	18.52	61	05	55	5	197	6.17
02	25	860906	18.52	05	55	61	5	197	3.40
02	26	860906	18.52	63	64	38	5	197	6.17
02	27	860906	18.52	64	38	63	5	197	6.17
02	28	860906	18.52	38	63	64	5	197	6.17
02	29	860906	18.52	63	64	38	5	197	6.17
02	30	860906	18.52	64	38	63	5	197	6.17
02	31	860906	18.52	38	63	64	5	197	2.47
02	32	860906	18.52	38	63	64	5	197	2.47
01	01	860907	18.52	63	64	38	4	327	0.31
01	02	860907	18.52	05	61	55	4	327	0.93
01	03	860907	18.52	63	64	38	4	327	3.70
01	04	860907	18.52	64	38	63	4	327	6.17
01	05	860907	18.52	38	63	64	4	327	6.17
01	06	860907	18.52	63	64	38	3	327	6.17
01	07	860907	18.52	64	38	63	3	327	6.17
01	08	860907	18.52	55	61	05	3	327	6.17
01	09	860907	18.52	61	05	55	3	327	6.17
01	10	860907	18.52	05	55	61	3	327	1.54
01	11	860907	18.52	05	55	61	3	327	4.63
01	12	860907	18.52	55	61	05	3	327	6.17
01	13	860907	18.52	61	05	55	3	327	6.17
01	14	860907	18.52	05	55	61	3	327	6.17
01	15	860907	18.52	38	63	64	3	327	6.17
01	16	860907	18.52	63	64	38	3	327	6.17
01	17	860907	18.52	64	38	63	3	327	2.16
01	18	860907	18.52	55	61	05	3	327	6.17
01	19	860907	18.52	64	38	63	3	327	3.09
01	20	860907	18.52	38	63	64	3	327	6.17
01	21	860907	18.52	63	64	38	3	327	7.10
01	22	860907	18.52	55	61	05	3	327	6.17
01	23	860907	18.52	61	05	55	3	327	6.17
01	24	860907	18.52	05	55	61	3	327	0.93
01	25	860907	18.52	05	55	61	3	327	5.56
01	26	860907	18.52	55	61	05	3	327	6.17
01	27	860907	18.52	61	05	55	3	327	6.17
01	28	860907	18.52	05	55	61	3	327	5.86

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes	Sun Position	Beauf. Horz.	Course No.	Position (Deg.)	Latitude Longitude	KM In Leg
			Left	Right Rec.	Vert.					
01	29	860907	18.52	63	64	38	3	327	6.17	
01	30	860907	18.52	64	38	63	3	327	4.01	
01	31	860907	18.52	64	38	63	11	327	2.16	
01	32	860907	18.52	38	63	64	11	327	6.17	
01	33	860907	18.52	63	64	38	11	327	6.17	
01	34	860907	18.52	64	38	63	64	327	6.17	
01	35	860907	18.52	38	63	64	05	327	3.09	
02	01	860907	18.52	55	61	05	05	327	7.10	
02	02	860907	18.52	61	05	55	55	327	6.17	
02	03	860907	18.52	05	55	61	61	327	1.54	
02	04	860907	18.52	05	55	61	05	327	4.63	
02	05	860907	18.52	55	61	05	05	327	0.62	
02	06	860907	18.52	55	61	05	05	2	2.47	
02	07	860907	18.52	55	61	05	05	2	3.40	
01	01	860908	18.52	64	61	05	64	2	6.17	
01	02	860908	18.52	61	05	64	61	2	6.17	
01	03	860908	18.52	05	64	38	38	2	3.40	
01	04	860908	18.52	05	64	61	61	2	3.09	
01	05	860908	18.52	64	61	38	38	2	0.93	
01	06	860908	18.52	64	61	05	05	2	6.17	
01	07	860908	18.52	61	05	64	61	2	6.17	
01	08	860908	18.52	05	64	61	61	2	4.94	
01	09	860908	18.52	63	55	38	38	2	6.79	
01	10	860908	18.52	55	38	63	55	2	6.17	
01	11	860908	18.52	38	63	55	38	2	6.17	
01	12	860908	18.52	63	55	38	38	2	6.17	
01	13	860908	18.52	55	38	63	55	2	5.86	
02	02	860908	18.52	64	61	05	05	2	3.70	
03	01	860908	18.52	61	05	64	61	3	6.17	
03	02	860908	18.52	05	64	61	05	3	3.40	
03	03	860908	18.52	64	61	05	05	3	6.17	
03	04	860908	18.52	64	61	05	05	3	5.25	
03	05	860908	18.52	61	05	64	61	3	0.93	
03	06	860908	18.52	55	38	63	55	3	3.40	
03	07	860908	18.52	38	63	55	38	3	6.17	
03	08	860908	18.52	63	55	38	38	3	6.17	

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes	Sun Position Horz. Vert.	Beauf. No.	Course (Deg.)	Position Latitude Longitude	KM In Leg
03	09	860908	18.52	55	38	63	3	327	6.17
03	10	860908	18.52	38	63	55	3	327	6.17
03	11	860908	18.52	63	55	38	3	327	6.17
03	12	860908	18.52	61	64	05	3	327	5.56
03	13	860908	18.52	61	64	05	4	327	0.62
03	14	860908	18.52	64	05	61	4	327	1.54
03	15	860908	18.52	64	05	61	4	327	4.63
03	16	860908	18.52	05	61	64	4	327	6.17
03	17	860908	18.52	61	64	05	4	327	3.09
03	18	860908	18.52	63	38	55	4	327	7.10
03	19	860908	18.52	64	61	05	4	327	4.01
03	20	860908	18.52	61	05	64	4	327	4.32
03	21	860908	18.52	55	38	63	4	327	6.17
03	22	860908	18.52	38	63	55	3	327	6.17
03	23	860908	18.52	63	55	38	3	327	7.41
01	01	860909	18.52	63	38	55	2	327	6.17
01	02	860909	18.52	38	55	63	2	327	6.17
01	03	860909	18.52	55	63	38	3	327	6.17
01	04	860909	18.52	63	38	55	3	327	6.17
01	05	860909	18.52	38	55	63	3	327	6.17
01	06	860909	18.52	55	63	38	3	327	6.17
01	07	860909	18.52	64	61	05	3	327	7.72
01	08	860909	18.52	61	05	64	3	327	4.94
02	01	860909	18.52	05	64	61	3	327	6.17
02	02	860909	18.52	64	61	05	3	327	4.01
02	03	860909	18.52	64	61	38	3	327	2.16
02	04	860909	18.52	61	05	64	3	327	6.17
02	05	860909	18.52	05	64	61	3	327	4.01
02	06	860909	18.52	05	64	61	3	327	2.16
02	07	860909	18.52	64	61	05	3	337	4.01
02	08	860909	18.52	55	63	38	3	337	6.17
02	09	860909	18.52	63	38	55	3	337	3.40
02	10	860909	18.52	38	55	63	3	337	6.17
03	01	860909	18.52	55	63	38	3	337	3.70
03	02	860909	18.52	63	38	55	3	327	11.11
03	03	860909	18.52	64	61	05	12	3	327
03	04	860909	5.56	64	61	05	12	3	233

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes	Sun Position Horz. Vert.	Beauf. No.	Course (Deg.)	Position Latitude Longitude	KM In Leg
03	05	860909	18.52	61 05	64	3	233	6.48	
03	06	860909	18.52	61 05	61	3	233	6.17	
03	07	860909	18.52	61 05	61	3	233	6.17	
03	08	860909	18.52	61 05	64	4	233	6.79	
03	09	860909	18.52	55 38	63	4	233	6.17	
03	10	860909	18.52	55 38	63	4	233	6.17	
03	11	860909	18.52	61 05	61	4	233	6.79	
03	12	860909	18.52	63 38	55	4	233	7.10	
03	13	860909	18.52	55 38	63	4	233	6.17	
03	14	860909	18.52	55 38	63	4	233	4.63	
03	15	860909	18.52	64 61	05	4	233	6.17	
03	16	860909	18.52	61 05	64	4	233	3.70	
03	17	860909	18.52	61 05	64	4	233	6.17	
01	01	860910	18.52	64 61	05	4	234	6.17	
01	02	860910	18.52	61 05	64	4	234	6.79	
01	03	860910	18.52	61 05	64	4	234	6.17	
01	04	860910	18.52	64 61	05	4	234	6.17	
01	05	860910	18.52	61 05	64	4	234	4.94	
01	06	860910	18.52	61 05	64	4	234	1.23	
01	07	860910	18.52	61 05	64	5	234	0.93	
01	08	860910	18.52	61 05	64	5	234	6.17	
01	09	860910	18.52	61 05	64	5	234	6.17	
01	10	860910	18.52	55 38	63	4	234	2.78	
01	11	860910	18.52	55 38	63	4	234	1.85	
01	12	860910	18.52	63 55	38	4	234	6.17	
02	01	860910	18.52	63 55	38	4	234	4.63	
02	02	860910	18.52	55 38	63	5	234	2.78	
02	03	860910	18.52	55 38	63	6	234	0.93	
02	04	860910	18.52	63 55	38	4	234	6.17	
02	05	860910	18.52	63 55	38	5	234	2.47	
02	06	860910	18.52	63 55	64	5	234	7.72	
02	07	860910	18.52	61 64	05	61	234	6.79	
02	08	860910	18.52	64 05	61	62	234	6.17	
02	09	860910	18.52	61 64	05	61	234	6.48	
02	10	860910	18.52	61 64	05	61	234	0.93	
02	11	860910	18.52	64 05	61	62	234	5.25	
02	12	860910	18.52	64 05	61	62	234	0.93	

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes	Sun Position	Beauf. No.	Course (Deg.)	Position Latitude	Position Longitude	KM In Leg
				Left Right Rec.	Horz. Vert.					
02	13	860910	18.52	05	61	64	12	12	5	234
02	14	860910	18.52	55	38	20	03	12	5	234
02	15	860910	18.52	38	20	55	03	12	5	234
02	16	860910	18.52	20	55	38	03	12	5	234
02	17	860910	18.52	55	38	20	03	12	5	234
02	18	860910	18.52	38	20	55	03	12	5	234
02	19	860910	18.52	20	55	38	02	12	5	234
02	20	860910	18.52	64	61	05	02	12	5	234
02	21	860910	18.52	61	05	64	02	01	5	234
02	22	860910	18.52	63	38	55	02	01	5	234
02	23	860910	18.52	61	64	05	02	01	5	234
02	24	860910	18.52	61	64	05	02	01	5	234
02	25	860910	18.52	64	05	61	5	234	07	27 S
02	26	860910	18.52	64	05	61	5	234	07	27 S
02	27	860910	18.52	05	61	64	5	234	07	27 S
02	28	860910	18.52	63	38	55	5	234	07	32 S
02	29	860910	18.52	38	55	63	5	234	07	32 S
01	01	860911	18.52	55	61	38	55	63	5	270
01	02	860911	18.52	61	38	55	61	38	5	270
01	03	860911	18.52	38	55	61	38	55	5	270
01	04	860911	18.52	55	61	38	55	61	5	270
01	05	860911	18.52	61	38	55	61	38	5	270
01	06	860911	18.52	38	55	61	38	55	5	270
01	07	860911	5.56	38	55	61	38	55	5	270
01	08	860911	18.52	38	55	61	38	55	5	270
01	09	860911	18.52	64	05	63	06	02	5	270
01	10	860911	18.52	64	05	63	06	01	5	270
01	11	860911	18.52	64	05	63	06	01	6	270
01	12	860911	18.52	64	05	63	06	01	6	270
01	13	860911	18.52	05	63	64	06	01	6	270
01	14	860911	18.52	63	64	05	06	01	6	270
01	15	860911	18.52	63	64	05	06	01	6	270
01	16	860911	18.52	64	05	63	06	02	6	270
01	17	860911	18.52	05	63	64	12	12	6	270
01	18	860911	18.52	63	64	05	12	12	6	270
01	19	860911	18.52	64	05	63	12	12	6	270
01	20	860911	18.52	55	61	38	12	12	6	270

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes	Sun Position	Beauf. No.	Course (Deg.)	Position Latitude	Position Longitude	KM In Leg
				Left	Right	Horz.	Vert.			
01	21	860911	18.52	61	38	55	12	12	6	270
01	22	860911	18.52	38	55	61	12	12	6	270
01	23	860911	18.52	38	55	61	12	12	6	270
01	24	860911	18.52	55	61	38	12	12	6	270
01	25	860911	18.52	61	38	55	12	12	6	270
01	26	860911	18.52	38	55	61	12	12	6	270
02	01	860911	18.52	63	64	05	12	12	6	270
02	02	860911	18.52	63	64	05	12	12	6	297
02	03	860911	18.52	64	05	63	12	12	6	297
02	04	860911	18.52	64	05	63	12	12	6	297
01	01	860912	18.52	63	64	05	63	05	5	000
01	02	860912	18.52	63	64	05	63	05	5	310
01	03	860912	18.52	64	05	63	05	63	5	310
01	04	860912	18.52	05	63	64	05	63	5	310
01	05	860912	18.52	63	64	05	63	05	5	310
01	06	860912	18.52	64	05	63	05	63	5	310
01	07	860912	18.52	05	63	64	05	63	5	310
01	08	860912	18.52	55	61	38	55	55	5	310
01	09	860912	18.52	61	38	55	61	38	5	310
01	10	860912	18.52	38	55	61	55	61	5	310
01	11	860912	18.52	38	55	61	55	61	5	310
01	12	860912	18.52	55	61	38	55	61	5	310
01	13	860912	18.52	61	38	55	61	38	04	01
01	14	860912	18.52	38	55	61	04	04	01	01
01	15	860912	18.52	63	64	05	63	04	01	01
01	16	860912	18.52	64	05	63	04	01	01	01
01	17	860912	18.52	05	63	64	12	12	5	310
01	18	860912	18.52	63	64	05	12	12	5	310
01	19	860912	18.52	64	05	63	12	12	5	310
01	20	860912	18.52	64	05	63	38	55	5	310
01	21	860912	18.52	05	63	64	55	61	5	310
01	22	860912	18.52	55	61	38	55	61	5	310
01	23	860912	18.52	61	38	55	61	38	55	6.17
01	24	860912	18.52	38	55	61	55	61	5	310
01	25	860912	18.52	38	55	61	55	61	5	310
01	26	860912	18.52	55	61	38	55	61	5	310
01	27	860912	18.52	61	38	55	61	38	6	310

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes			Sun Position Horz. Vert.	Beauf. No.	Course (Deg.)	Position Latitude Longitude		KM In Leg		
				Left	Right	Rec.								
01	28	860912	18.52	38	55	61	11	01	6	310	05 45 S	098 54 W	8.95	
02	01	860912	18.52	63	64	05	11	01	6	310	05 45 S	098 54 W	6.17	
02	02	860912	18.52	64	05	63	11	02	5	310	05 40 S	099 00 W	6.17	
02	03	860912	18.52	05	63	64	11	02	5	310	05 40 S	099 00 W	6.17	
02	04	860912	18.52	63	64	05	11	02	5	310	05 34 S	099 08 W	6.17	
02	05	860912	18.52	64	05	63	11	03	5	310	05 30 S	099 12 W	3.70	
02	06	860912	18.52	05	63	64	11	03	5	310	05 34 S	099 08 W	6.17	
02	07	860912	18.52	63	64	05	11	03	5	310	05 30 S	099 12 W	0.31	
02	08	860912	18.52	63	64	05	11	03	4	310	05 34 S	099 22 W	6.17	
01	01	860913	18.52	55	61	38	55	4	000	03 44 S	099 22 W	6.48		
01	02	860913	18.52	61	38	55	61	4	000	03 44 S	099 22 W	6.17		
01	03	860913	18.52	38	55	61	38	4	000	03 44 S	099 22 W	6.17		
01	04	860913	18.52	55	61	38	55	4	000	03 44 S	099 22 W	6.17		
01	05	860913	18.52	61	38	55	61	4	000	03 44 S	099 22 W	7.10		
01	06	860913	18.52	38	55	61	38	4	000	03 44 S	099 22 W	4.94		
01	07	860913	18.52	63	64	05	63	4	000	03 15 S	099 24 W	6.79		
02	01	860913	18.52	64	05	63	64	4	000	03 15 S	099 24 W	2.16		
02	02	860913	18.52	64	05	63	64	4	000	03 15 S	099 24 W	2.16		
02	03	860913	18.52	64	05	63	64	4	000	03 15 S	099 24 W	1.85		
02	04	860913	18.52	05	63	64	64	4	000	03 15 S	099 24 W	2.16		
02	05	860913	18.52	05	63	64	64	4	000	03 15 S	099 24 W	2.16		
03	01	860913	18.52	63	64	05	63	03	01	000	03 06 S	099 26 W	3.70	
03	02	860913	18.52	55	61	38	03	01	4	000	03 06 S	099 26 W	1.85	
04	01	860913	18.52	61	38	55	03	12	4	000	03 03 S	099 29 W	1.54	
04	02	860913	18.52	61	38	55	03	12	4	000	03 03 S	099 29 W	0.31	
05	01	860913	18.52	61	38	55	61	03	12	4	000	03 02 S	099 29 W	3.40
05	02	860913	18.52	55	61	38	55	03	12	5	000	02 46 S	099 30 W	6.17
05	03	860913	18.52	55	61	38	55	12	12	4	000	02 46 S	099 30 W	6.17
05	04	860913	18.52	61	38	55	12	12	4	000	02 46 S	099 30 W	6.17	
06	01	860913	18.52	64	05	64	63	09	12	4	000	02 21 S	099 32 W	6.79
06	02	860913	18.52	63	05	64	63	09	12	4	000	02 21 S	099 32 W	2.16
06	03	860913	18.52	05	64	63	05	09	12	4	000	02 21 S	099 32 W	6.79
06	04	860913	18.52	64	05	63	05	09	12	4	000	02 21 S	099 32 W	6.79
06	05	860913	18.52	63	05	64	05	09	01	4	000	02 21 S	099 32 W	6.79
06	06	860913	18.52	05	64	63	09	01	4	000	02 21 S	099 32 W	3.40	
07	01	860913	18.52	64	05	65	38	09	02	4	000	02 21 S	099 32 W	6.79
07	02	860913	18.52	55	64	05	65	09	02	4	000	02 21 S	099 32 W	2.16

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes	Sun Position Horz. Vert.	Beauf. No.	Course (Deg.)	Latitude Longitude	Position KM In Leg
08	01	860913	18.52	38	64	55	09	02	4
08	02	860913	18.52	64	55	38	09	02	4
09	01	860913	18.52	05	61	63	09	03	4
09	02	860913	18.52	05	61	63	09	03	4
01	01	860914	18.52	55	63	05	3	000	01 59 S
01	02	860914	18.52	63	05	55	3	000	00 06 S
01	03	860914	18.52	55	05	20	3	000	00 09 S
01	04	860914	18.52	63	05	55	3	000	00 37 W
01	05	860914	18.52	05	55	63	3	000	01 59 W
02	01	860914	18.52	55	63	05	3	061	00 09 N
02	02	860914	18.52	64	61	38	01	02	3
03	01	860914	18.52	61	38	64	01	02	4
03	02	860914	18.52	38	64	61	38	01	4
04	01	860914	18.52	64	61	38	64	01	3
04	02	860914	18.52	61	38	64	61	01	3
04	03	860914	18.52	38	64	61	01	01	4
04	04	860914	18.52	38	64	61	01	01	4
04	05	860914	18.52	63	55	05	01	01	4
04	06	860914	18.52	55	05	63	12	12	4
04	07	860914	18.52	05	63	55	12	12	4
04	08	860914	18.52	63	55	05	12	12	4
04	09	860914	18.52	55	05	63	12	12	4
04	10	860914	18.52	05	63	55	12	12	4
04	11	860914	18.52	64	61	38	64	12	4
04	12	860914	18.52	61	38	64	61	07	4
04	13	860914	18.52	61	38	64	61	07	4
04	14	860914	18.52	38	64	61	38	01	4
05	01	860914	18.52	64	61	38	64	07	4
05	02	860914	18.52	64	61	38	64	07	4
06	01	860914	18.52	61	38	64	07	01	4
07	01	860914	18.52	55	63	05	07	01	4
07	02	860914	18.52	63	05	55	07	01	4
08	01	860914	18.52	64	38	61	07	01	4
08	02	860914	18.52	64	38	61	61	07	4
08	03	860914	18.52	38	61	64	61	07	4
08	04	860914	18.52	05	55	63	63	07	4
08	05	860914	18.52	55	63	05	64	07	4
08	06	860914	18.52	38	61	64	61	07	4

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes		Sun Position Horz. Vert.	Beauf. No.	Course (Deg.)	Position		KM In Leg			
				Left	Right				Latitude	Longitude				
08	07	860914	18.52	38	61	64	4	062	098	24 W	0.62			
08	08	860914	18.52	61	64	38	5	062	00	28 S	6.17			
08	09	860914	18.52	64	38	61	5	062	01	00 N	0.62			
08	10	860914	18.52	64	38	61	5	062	00	28 S	5.56			
08	11	860914	18.52	38	61	64	5	062	01	00 N	2.78			
08	12	860914	18.52	38	61	64	5	062	00	28 S	4.63			
08	13	860914	18.52	38	61	64	5	047	00	28 S	0.31			
01	01	860915	18.52	64	61	38	5	047	00	28 S	6.17			
01	02	860915	18.52	61	38	64	5	047	01	00 N	1.54			
01	03	860915	18.52	61	38	64	05	03	5	310	0.93			
02	01	860915	18.52	38	64	61	01	03	5	047	00	24 S		
02	02	860915	18.52	38	64	61	38	61	5	047	00	24 S		
02	03	860915	18.52	64	61	38	64	61	5	047	00	21 S		
03	01	860915	18.52	61	38	64	05	02	01	00	19 S	3.70		
04	01	860915	18.52	55	63	05	55	02	01	00	19 S	1.85		
04	02	860915	18.52	63	05	55	63	02	01	00	19 S	6.79		
04	03	860915	18.52	38	55	63	05	02	01	00	19 S	6.17		
05	01	860915	18.52	05	55	63	05	02	01	00	19 S	1.85		
05	02	860915	18.52	05	55	63	05	02	01	00	19 S	0.93		
05	03	860915	18.52	55	63	05	55	02	01	00	19 S	1.54		
05	04	860915	18.52	63	05	55	63	02	01	00	19 S	3.40		
05	05	860915	18.52	38	64	61	05	02	01	00	19 S	8.03		
05	06	860915	18.52	38	64	61	38	61	02	01	00	19 S		
05	07	860915	18.52	38	64	61	38	61	12	12	047	00	03 S	
05	08	860915	18.52	38	64	61	38	61	12	12	047	00	03 S	
05	09	860915	18.52	64	61	38	64	61	12	12	047	00	03 S	
05	10	860915	18.52	61	38	64	61	38	64	12	12	047	00	03 S
05	11	860915	18.52	38	64	61	38	64	61	12	12	047	00	03 S
05	12	860915	18.52	38	64	61	38	64	61	12	12	047	00	03 S
06	01	860915	18.52	64	61	38	55	12	12	5	047	00	09 N	
06	02	860915	18.52	63	05	55	55	12	12	5	047	00	15 N	
06	03	860915	18.52	63	05	55	63	55	12	12	5	047	00	15 N
07	01	860915	18.52	63	05	55	63	55	12	12	5	047	00	15 N
07	02	860915	18.52	05	55	63	05	55	12	12	5	047	00	15 N
08	01	860915	18.52	05	55	63	05	55	12	12	5	047	00	15 N
08	02	860915	18.52	55	63	05	55	55	12	12	5	047	00	15 N
08	03	860915	18.52	55	63	05	55	55	12	12	5	047	00	15 N

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes		Sun Position	Beauf. No.	Course (Deg.)	Position Latitude	Position Longitude	KM In Leg
				Left	Right	Horz.	Vert.				
08	04	860915	18.52	63	05	55	12	12	00 22 N	096 33 W	2.78
09	01	860915	18.52	64	61	38	5	5	00 24 N	096 32 W	6.17
09	02	860915	18.52	61	38	64	5	5	00 24 N	096 32 W	1.23
10	01	860915	18.52	38	64	61	5	5	00 30 N	096 27 W	7.41
10	02	860915	18.52	63	05	55	5	5	00 36 N	096 20 W	6.79
10	03	860915	18.52	64	61	38	64	5	00 36 N	096 20 W	1.23
11	01	860915	18.52	61	38	64	5	5	00 36 N	096 20 W	2.47
11	02	860915	18.52	63	55	05	5	5	00 36 N	096 20 W	6.17
11	03	860915	18.52	55	05	63	5	5	00 01 S	095 29 W	3.09
11	04	860915	18.52	55	05	63	5	5	00 01 S	095 29 W	2.16
11	05	860915	18.52	55	05	63	5	5	00 01 S	095 29 W	0.93
11	06	860916	18.52	55	05	63	5	5	00 01 S	095 29 W	6.79
01	01	860916	18.52	55	05	63	5	5	00 01 S	095 29 W	1.23
01	02	860916	18.52	05	63	55	10	02	00 01 S	095 29 W	4.94
01	03	860916	18.52	05	63	55	10	02	00 01 S	095 29 W	6.17
01	04	860916	18.52	63	55	05	63	5	00 01 S	095 29 W	1.54
01	05	860916	18.52	55	05	63	5	5	00 01 S	095 29 W	1.23
01	06	860916	18.52	55	05	63	10	02	00 01 S	095 29 W	1.85
01	07	860916	18.52	55	05	63	5	5	00 01 S	095 29 W	6.48
02	01	860916	18.52	05	63	55	05	63	00 03 S	095 18 W	4.01
02	02	860916	18.52	63	55	05	63	5	00 03 S	095 18 W	6.17
02	03	860916	18.52	61	64	38	61	4	00 03 S	095 18 W	1.85
02	04	860916	18.52	64	38	61	64	4	00 03 S	095 18 W	2.16
02	05	860916	18.52	38	61	64	38	4	00 03 S	095 18 W	4.63
03	01	860916	18.52	61	64	38	61	4	00 03 S	095 18 W	6.17
04	01	860916	18.52	64	38	61	55	4	00 03 S	095 18 W	0.93
04	02	860916	18.52	63	55	05	63	4	00 03 S	095 18 W	0.93
04	03	860916	18.52	55	05	63	12	4	00 03 S	095 18 W	6.17
04	04	860916	18.52	55	05	63	12	4	00 03 S	095 18 W	5.25
04	05	860916	18.52	55	05	63	09	12	00 03 S	095 18 W	6.17
04	06	860916	18.52	05	63	55	09	12	00 03 S	095 18 W	6.17
04	07	860916	18.52	63	55	05	63	12	00 03 S	095 18 W	0.62
04	08	860916	18.52	55	05	63	38	12	00 03 S	095 18 W	1.54
04	09	860916	18.52	05	63	55	12	12	00 03 S	095 18 W	4.01
04	10	860916	18.52	61	64	38	61	12	00 03 S	095 18 W	6.17
04	11	860916	18.52	64	38	61	12	12	00 03 S	095 18 W	0.62
04	12	860916	18.52	64	38	61	12	12	00 03 S	095 18 W	1.54
04	13	860916	18.52	64	38	61	12	12	00 03 S	095 18 W	4.01

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes			Sun Position Horz.	Beauf. No.	Course (Deg.)	Position		KM In Leg
				Left	Right	Rec.				Latitude	Longitude	
04	14	860916	18.52	38	61	64	12	12	6	135	6.17	
04	15	860916	18.52	61	64	38	03	12	6	135	5.25	
04	16	860916	18.52	61	64	38	03	12	6	135	0.31	
05	01	860916	18.52	55	63	05	08	03	5	043	6.17	
05	02	860916	18.52	63	05	55	08	03	5	043	2.47	
01	01	860917	18.52	63	61	38	55	08	5	042	6.17	
01	02	860917	18.52	61	38	63	61	38	5	042	6.17	
01	03	860917	18.52	38	63	61	61	38	5	042	6.17	
01	04	860917	18.52	63	61	38	63	61	5	042	6.17	
01	05	860917	18.52	61	38	63	61	38	5	042	6.17	
01	06	860917	18.52	38	63	61	61	38	5	042	6.17	
01	07	860917	18.52	55	64	05	05	05	5	042	3.40	
02	01	860917	18.52	64	05	55	55	05	5	047	6.17	
03	01	860917	18.52	38	61	63	63	63	5	047	4.01	
04	01	860917	18.52	38	61	63	63	63	5	047	3.40	
04	02	860917	18.52	61	63	38	61	63	5	047	6.17	
04	03	860917	18.52	63	38	61	61	38	5	047	1.54	
04	04	860917	18.52	63	38	61	61	38	5	047	2.47	
05	01	860917	18.52	55	64	05	05	05	4	058	4.32	
06	01	860917	18.52	64	05	55	55	05	4	058	6.17	
06	02	860917	18.52	05	55	64	64	05	4	058	2.78	
07	01	860917	18.52	61	38	63	63	38	4	040	7.10	
07	02	860917	18.52	55	64	05	05	05	4	040	5.25	
07	03	860917	18.52	38	63	61	61	38	4	040	6.17	
07	04	860917	18.52	63	61	38	61	38	4	040	4.32	
08	01	860917	18.52	55	05	64	05	05	4	053	0.31	
01	01	860918	18.52	55	64	05	55	64	4	068	6.17	
01	02	860918	18.52	64	05	55	64	05	4	068	5.56	
02	01	860918	22.22	05	55	64	05	55	4	068	1.23	
02	02	860918	22.22	55	64	05	55	64	4	068	5.93	
02	03	860918	22.22	55	64	05	55	64	4	068	3.33	
03	01	860918	22.22	55	64	05	55	64	4	068	2.59	
03	02	860918	22.22	64	05	55	63	05	4	068	5.19	
04	01	860918	22.22	61	38	63	61	38	4	068	7.41	
04	02	860918	22.22	38	63	61	61	38	4	068	6.67	
04	03	860918	22.22	38	63	61	61	38	5	068	0.74	
04	04	860918	22.22	63	61	01	01	01	5	068	7.41	

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Left	Codes Right	Sun Position Horz.	Position Vert.	Beauf. Course (Deg.)	Latitude Longitude	Position No.	KM In Leg
04	05	860918	22.22	61	38	63	01	5	068		4.07
04	06	860918	22.22	61	38	63	01	5	068		3.33
04	07	860918	22.22	38	63	61		5	068	02 43 N	7.04
04	08	860918	22.22	38	63	61		5	068	090 30 W	4.07
04	09	860918	22.22	63	61	38		5	068		6.30
04	10	860918	22.22	64	55	05		5	068		7.41
04	11	860918	22.22	55	05	64		5	068		7.41
04	12	860918	22.22	05	64	55		5	068		7.41
04	13	860918	22.22	64	55	05		5	068		7.78
04	14	860918	22.22	55	05	64		5	068		7.41
04	15	860918	22.22	05	64	55		5	068		4.82
04	16	860918	22.22	05	64	55	12	12	5	068	5.19
04	17	860918	22.22	38	61	63		5	068		7.41
04	18	860918	22.22	61	63	38		5	068		3.33
04	19	860918	22.22	61	63	38		5	065	02 56 N	0.37
05	01	860918	22.22	61	63	38		5	065	02 55 N	1.11
05	02	860918	22.22	63	38	61		5	065	089 53 W	7.41
05	03	860918	22.22	38	61	63		5	065		7.41
05	04	860918	22.22	61	63	38		5	065		7.41
05	05	860918	22.22	63	38	61	06	01	5	065	4.07
05	06	860918	22.22	55	64	05	07	01	5	065	6.67
05	07	860918	22.22	64	05	55	07	01	5	065	7.41
05	08	860918	22.22	05	55	64		5	065		5.93
05	09	860918	22.22	63	61	38	61	07	01	5	065
05	10	860918	22.22	64	55	05	07	01	5	065	7.78
05	11	860918	22.22	55	05	64	07	02	5	065	7.41
05	12	860918	22.22	63	61	38	07	02	5	065	1.85
05	13	860918	22.22	61	38	63	61		5	065	3.70
06	01	860918	22.22	38	63	61		5	065	03 10 N	0.74
06	02	860918	22.22	38	63	61		5	064	03 53 N	7.41
01	01	860919	18.52	61	63	38	61		5	064	6.17
01	02	860919	18.52	63	38	61		5	064	04 00 N	6.30
01	03	860919	22.22	63	38	61		5	064	087 09 W	7.41
01	04	860919	22.22	38	61	63		5	064		6.30
01	05	860919	22.22	61	63	38	61		5	064	
02	01	860919	22.22	63	38	61		5	064		
02	02	860919	22.22	38	61	63		5	064		

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes	Sun Position	Beauf. No.	Course (Deg.)	Position Latitude	Position Longitude	KM In Leg
				Left Right Rec.	Horz. Vert.					
02	03	860919	22.22	55	64	05	5	064		7.41
02	04	860919	22.22	64	05	55	5	064		7.41
02	05	860919	22.22	05	55	64	5	064		7.41
02	06	860919	22.22	55	64	05	5	064		7.41
02	07	860919	22.22	64	05	55	5	064		7.41
02	08	860919	22.22	05	55	64	5	064		7.41
02	09	860919	22.22	63	38	61	5	064	04 13 N	0.74
02	10	860919	22.22	63	38	61	5	064	04 17 N	0.74
02	11	860919	22.22	38	61	63	5	064	086 41 W	6.67
02	12	860919	22.22	38	61	63	5	064	086 30 W	2.59
03	01	860919	22.22	38	61	63	5	064		0.74
03	02	860919	22.22	61	63	38	5	064		7.41
03	03	860919	22.22	63	38	61	5	064		4.07
03	04	860919	22.22	38	61	63	5	064		7.41
03	05	860919	22.22	55	64	05	5	064		7.41
03	06	860919	22.22	64	05	55	4	064		2.96
03	07	860919	22.22	05	55	64	4	064		5.19
03	08	860919	22.22	55	64	05	4	064		7.41
03	09	860919	22.22	55	64	05	4	064		0.74
03	10	860919	22.22	64	05	55	4	064		0.74
03	11	860919	22.22	05	55	64	4	064		3.33
04	01	860919	22.22	63	61	38	4	063	04 45 N	7.41
05	01	860919	22.22	63	61	38	4	063	085 34 W	3.70
05	02	860919	22.22	61	38	63	4	063	04 43 N	0.37
05	03	860919	22.22	61	38	63	4	063	085 34 W	3.70
05	04	860919	22.22	38	63	61	3	063		5.93
05	05	860919	22.22	63	61	38	3	063		1.85
05	06	860919	22.22	63	61	38	3	063	04 49 N	0.49
01	01	860920	22.22	64	61	05	3	066	085 22 W	3.70
01	02	860920	22.22	63	61	05	3	066	05 37 N	5.93
01	03	860920	22.22	63	61	05	3	066	083 26 W	1.48
01	04	860920	7.41	63	61	05	3	360		1.85
01	05	860920	22.22	63	61	05	3	066		0.49
01	06	860920	22.22	61	05	63	3	066		3.70
01	07	860920	22.22	61	05	63	3	066		5.93
01	08	860920	22.22	05	63	61	3	066		1.48
01	09	860920	22.22	05	63	61	3	066		1.85

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes	Sun Position Horz.	Sun Position Vert.	Beauf. No.	Course (Deg.)	Latitude Longitude	Position In Leg	KM
				Left Right	Rec.						
01	10	860920	22.22	63	61	05	01	02	3	066	2.96
01	11	860920	22.22	63	61	05	01	02	3	066	4.44
01	12	860920	22.22	61	05	63	01	02	3	066	3.70
01	13	860920	22.22	61	05	63			3	066	2.22
01	14	860920	22.22	55	64	38			3	066	3.70
02	01	860920	22.22	64	38	55	01	01	3	066	05 47 N
02	02	860920	22.22	38	55	64			3	066	05 52 N
03	01	860920	22.22	55	64	38			3	065	05 50 N
04	01	860920	22.22	64	38	55			3	065	05 50 N
04	02	860920	22.22	61	63	05			2	065	082 46 W
04	03	860920	22.22	63	05	61			2	065	7.41
04	04	860920	22.22	63	05	61			3	065	6.30
01	01	860921	12.96	55	64	38			1	001	07 52 N
01	02	860921	12.96	63	61	05			1	001	079 27 W
01	03	860921	12.96	38	64	55			1	001	2.59
02	01	860921	12.96	38	64	55			1	001	5.83
02	02	860921	12.96	64	55	38			1	001	4.54
02	03	860921	12.96	55	38	64			1	001	0.65
02	04	860921	12.96	38	64	55			1	001	4.32
03	01	860921	22.22	05	63	61			1	004	08 03 N
03	02	860921	22.22	05	63	61			1	004	079 30 W
03	03	860921	22.22	63	61	05			1	004	4.32
03	04	860921	22.22	61	05	63			1	001	2.59
03	05	860921	22.22	61	05	63			1	004	2.96
03	06	860921	22.22	63	61	05			1	004	4.82
03	07	860921	22.22	61	05	63			1	004	8.52
03	08	860921	22.22	05	63	61			1	004	7.41
03	09	860921	22.22	64	38	55			1	004	7.78
01	01	860923	18.52	63	64	38			2	004	7.78
02	01	860923	18.52	63	64	38			3	180	1.23
03	01	860923	18.52	64	38	63			3	180	6.17
03	02	860923	18.52	64	38	63			3	180	4.01
03	03	860923	18.52	64	38	63			3	180	6.17
03	04	860923	18.52	38	63	64			3	180	3.09
03	05	860923	18.52	63	64	38			3	180	6.17
03	06	860923	18.52	55	61	05			3	180	4.01
03	07	860923	18.52	61	05	55			3	180	6.17

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes			Sun Position Horz. Vert.	Beauf. No.	Course (Deg.)	Position Latitude Longitude		KM In Leg
				Left	Right	Rec.						
03	08	860923	18.52	05	55	61	09	01	3	180		3.40
03	09	860923	18.52	05	55	61			3	180		0.62
03	10	860923	18.52	05	55	61	05		3	200		2.16
03	11	860923	18.52	55	61	05			3	200		6.17
04	01	860923	18.52	61	05	55			3	200	05 53 N	6.17
04	02	860923	18.52	05	55	61			3	200	05 48 N	1.54
04	03	860923	18.52	64	38	63			3	200	05 43 N	6.17
05	01	860923	18.52	38	63	64			3	200	05 36 N	3.09
06	01	860923	18.52	55	61	05			3	200	05 36 W	5.56
06	02	860923	18.52	55	61	05			4	200		1.54
06	03	860923	18.52	61	05	55			4	200		6.17
07	01	860923	18.52	05	55	61			4	201	05 30 N	4.63
08	01	860923	18.52	63	64	38			3	201	05 24 N	6.17
08	02	860923	18.52	64	38	63			4	201		6.17
08	03	860923	18.52	38	63	64			4	201		6.17
08	04	860923	18.52	63	64	38			3	201		6.17
08	05	860923	18.52	55	61	05			5	201		4.63
08	06	860923	18.52	64	38	63			5	201		6.48
08	07	860923	18.52	38	63	64			5	201		1.23
08	08	860923	18.52	05	61	55			5	201		5.25
09	01	860923	18.52	61	55	05			5	201	05 03 N	6.48
01	01	860924	18.52	05	61	55			6	204	03 13 N	6.17
01	02	860924	18.52	61	55	05			6	204		2.16
01	03	860924	18.52	63	64	38			6	204		6.48
01	04	860924	18.52	61	55	05			6	204		6.17
01	05	860924	18.52	55	05	61			6	204		1.85
01	06	860924	18.52	55	05	61			6	204		4.32
01	07	860924	18.52	05	61	55			6	204		6.17
01	08	860924	18.52	61	55	05			6	204		4.32
02	02	860924	18.52	63	64	38			6	204		4.63
02	03	860924	18.52	64	38	63			6	204		6.17
02	04	860924	18.52	38	63	64			6	204		6.17
02	05	860924	18.52	63	64	38			6	204		3.40
02	06	860924	18.52	55	61	05			6	204		6.79
02	07	860924	18.52	61	05	55			6	204	02 36 N	6.17

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes	Sun Position	Position Horz. Vert.	Beauf. No.	Course (Deg.)	Latitude Longitude	KM In Leg
				Left Right Rec.						
02	08	860924	18.52	05	55	61	12	12	6	204
02	09	860924	18.52	05	55	61	12	12	6	204
02	10	860924	18.52	55	61	05	12	12	6	204
02	11	860924	18.52	38	64	63	12	12	6	204
02	12	860924	18.52	38	64	63	12	12	6	204
02	13	860924	18.52	55	61	05	38	38	5	197
01	01	860925	18.52	63	64	61	05	05	5	197
01	02	860925	18.52	63	61	05	5	5	5	197
01	03	860925	18.52	55	61	05	5	5	5	197
01	04	860925	18.52	64	38	63	38	63	5	197
01	05	860925	18.52	38	63	64	38	63	5	197
01	06	860925	18.52	63	64	38	63	38	5	197
01	07	860925	18.52	64	38	63	38	63	5	197
02	01	860925	18.52	55	61	05	5	5	5	197
02	02	860925	18.52	55	61	05	5	5	5	197
02	03	860925	18.52	55	61	05	5	5	5	197
02	04	860925	18.52	61	05	55	5	5	5	197
02	05	860925	18.52	05	55	61	5	5	5	197
02	06	860925	18.52	05	55	61	5	5	5	197
03	01	860925	18.52	55	61	05	55	61	4	203
03	02	860925	18.52	61	05	55	4	4	4	203
04	01	860925	18.52	63	64	38	63	64	4	207
05	01	860925	18.52	55	61	05	4	4	4	207
05	02	860925	18.52	64	38	63	64	38	4	207
05	03	860925	18.52	38	63	64	4	4	4	207
05	04	860925	18.52	38	63	64	4	4	4	212
05	05	860925	18.52	63	64	38	63	64	4	212
06	01	860925	18.52	55	61	05	55	61	4	212
06	02	860925	18.52	55	61	05	55	61	4	212
06	03	860925	18.52	61	05	55	5	5	4	212
07	01	860925	18.52	61	05	55	5	5	4	269
08	01	860925	18.52	61	05	55	5	5	4	269
09	01	860925	18.52	61	05	55	61	05	4	269
09	02	860925	18.52	05	55	61	05	05	4	269
09	03	860925	18.52	55	61	05	63	63	4	269
09	04	860925	18.52	38	64	63	38	63	4	269
09	05	860925	18.52	64	63	38	63	38	4	269

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes	Sun Position Horz.	Sun Position Vert.	Beauf. No.	Course (Deg.)	Position Latitude	Position Longitude	KM In Leg	
09	06	860925	18.52	63	38	64	4	269			6.48	
10	01	860925	18.52	38	64	63	4	269			2.16	
10	02	860925	18.52	55	61	05	4	269			6.79	
10	03	860925	18.52	61	05	55	4	269			0.93	
10	04	860925	18.52	64	63	38	4	269			6.79	
10	05	860925	18.52	05	61	55	4	269	00 57 S	082 36 W	6.17	
10	06	860925	18.52	61	55	05	4	269	00 57 S	082 40 W	0.62	
11	01	860925	18.52	61	55	05	4	269			1.54	
11	02	860925	18.52	55	61	05	4	269			1.85	
01	01	860926	18.52	05	61	64	5	270	00 59 S	084 45 W	3.09	
02	01	860926	18.52	05	61	64	5	270	00 58 S	084 47 W	1.54	
02	02	860926	18.52	38	55	63	5	270			5.25	
02	03	860926	18.52	61	64	05	5	270			6.79	
02	04	860926	18.52	64	05	61	5	270			6.17	
02	05	860926	18.52	05	61	64	5	270			6.17	
02	06	860926	18.52	61	64	05	5	270			2.16	
02	07	860926	18.52	61	64	05	5	004	00 58 S	085 05 W	1.54	
03	01	860926	18.52	61	64	05	61	004			1.23	
03	02	860926	18.52	64	05	61	05	004			2.78	
03	03	860926	18.52	63	38	55	5	004			3.70	
03	04	860926	18.52	63	38	55	4	004			6.17	
03	05	860926	18.52	38	55	63	4	004			6.17	
03	06	860926	18.52	55	63	38	4	004			6.17	
03	07	860926	18.52	63	38	55	4	004			6.48	
04	01	860926	18.52	63	38	55	4	004			6.79	
04	02	860926	18.52	38	55	63	4	004			6.17	
04	03	860926	18.52	64	61	05	64	004			1.54	
04	04	860926	18.52	61	05	64	4	004			5.56	
04	05	860926	18.52	05	64	61	4	004			1.54	
04	06	860926	18.52	63	38	55	4	004			1.54	
04	07	860926	18.52	05	64	61	4	004			4.01	
05	01	860926	18.52	64	61	05	64	3	004	00 18 S	085 02 W	6.17
05	02	860926	18.52	38	55	63	3	004	00 18 S	085 02 W	6.17	
05	03	860926	18.52	55	63	38	4	004			5.56	
05	04	860926	18.52	63	38	55	4	004			0.93	
05	05	860926	18.52	63	38	55	4	015			6.17	
05	06	860926	18.52	38	55	63	4	015				

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes	Sun Position Horz. Rec.	Beauf. No.	Course (Deg.)	Position Latitude	Position Longitude	KM In Leg
05	07	860926	18.52	55	63	38	5	015	6.17	
05	08	860926	18.52	63	38	55	5	015	3.40	
05	09	860926	18.52	63	38	55	5	045	2.47	
05	10	860926	18.52	61	64	05	5	045	6.17	
05	11	860926	18.52	64	05	61	5	045	6.17	
05	12	860926	18.52	05	61	64	5	045	6.17	
05	13	860926	18.52	61	64	05	5	045	6.79	
05	14	860926	18.52	64	05	61	5	045	2.78	
05	15	860926	18.52	64	05	61	07	02	2.16	
05	16	860926	18.52	64	05	61	07	02	1.23	
05	17	860926	18.52	05	61	64	5	045	3.09	
05	18	860926	18.52	05	61	64	07	02	2.47	
05	19	860926	18.52	63	55	38	5	045	2.47	
06	01	860926	18.52	55	38	63	5	045	6.79	
06	02	860926	18.52	38	63	55	5	045	2.47	
01	01	860927	18.52	61	64	05	5	064	1.54	
01	02	860927	18.52	61	64	05	5	064	5.25	
01	03	860927	18.52	63	55	38	01	03	6.17	
01	04	860927	18.52	55	38	63	5	064	7.72	
01	05	860927	18.52	38	63	55	5	064	6.17	
01	06	860927	18.52	63	55	38	5	064	4.94	
02	01	860927	18.52	55	38	63	5	064	0.93	
03	01	860927	18.52	55	38	63	5	064	0.93	
03	02	860927	18.52	61	64	05	5	064	6.17	
03	03	860927	18.52	64	05	61	5	064	6.17	
03	04	860927	18.52	05	61	64	5	064	5.86	
04	01	860927	18.52	61	64	05	61	02	6.17	
04	02	860927	18.52	64	05	61	5	064	3.09	
04	03	860927	18.52	63	38	55	02	12	2.78	
04	04	860927	18.52	63	38	55	63	02	2.47	
04	05	860927	18.52	38	55	63	38	55	0.62	
04	06	860927	18.52	38	55	63	61	05	3.09	
04	07	860927	18.52	38	55	63	05	064	6.17	
04	08	860927	18.52	55	63	38	55	064	6.17	
04	09	860927	18.52	64	61	05	55	064	6.17	
04	10	860927	18.52	55	63	38	55	064	6.17	
04	11	860927	18.52	63	38	55	5	059	6.17	

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes			Sun Position		Beauf. No.	Course (Deg.)	Position		KM In Leg
				Left	Right	Rec.	Horz.	Vert.			Latitude	Longitude	
04	12	860927	18.52	38	55	63	5	059	5	059	01 54 N	082 12 W	4.63
04	13	860927	18.52	64	61	05	5	059	5	059	01 44 N	082 27 W	6.17
04	14	860927	18.52	61	05	64	4	059	4	059	01 46 N	082 24 W	5.25
05	01	860927	18.52	05	64	61	05	64	4	059	01 46 N	082 24 W	6.17
05	02	860927	18.52	64	61	05	64	05	4	059	01 46 N	082 24 W	6.79
05	03	860927	18.52	61	05	64	4	059	4	059	01 46 N	082 24 W	8.33
05	04	860927	18.52	63	38	55	4	059	4	059	01 46 N	082 24 W	6.17
05	05	860927	18.52	38	55	63	4	059	4	059	01 46 N	082 24 W	3.09
05	06	860927	18.52	38	55	63	4	059	4	059	01 54 N	082 12 W	4.01
05	07	860927	18.52	55	63	38	4	059	4	059	01 54 N	082 12 W	6.17
05	08	860927	18.52	63	38	55	4	059	4	059	01 54 N	082 12 W	2.47
05	09	860927	18.52	63	38	55	4	059	4	059	01 59 N	082 06 W	2.78
05	10	860927	18.52	63	38	55	4	059	4	059	01 59 N	082 06 W	1.85
06	01	860927	18.52	64	61	05	4	008	4	008	02 18 N	082 02 W	2.16
06	02	860927	18.52	64	61	05	4	008	4	008	02 18 N	082 02 W	4.01
06	03	860927	18.52	61	05	64	4	008	4	008	02 18 N	082 02 W	6.79
06	04	860927	18.52	05	64	61	4	008	4	008	02 18 N	082 02 W	2.16
06	05	860927	18.52	05	64	61	4	008	4	008	02 18 N	082 02 W	2.47
01	01	860928	18.52	61	64	05	3	032	3	032	03 30 N	081 55 W	4.32
01	02	860928	18.52	63	38	55	02	02	3	032	03 30 N	081 55 W	5.56
01	03	860928	18.52	64	05	61	3	032	3	032	03 30 N	081 55 W	6.17
01	04	860928	18.52	05	61	64	3	032	3	032	03 30 N	081 55 W	6.17
01	05	860928	18.52	61	64	05	3	032	3	032	03 30 N	081 55 W	2.78
01	06	860928	18.52	05	64	20	3	032	3	032	03 30 N	081 55 W	1.54
01	07	860928	18.52	61	64	05	3	032	3	032	03 30 N	081 55 W	2.16
01	08	860928	18.52	64	05	61	02	02	3	032	03 30 N	081 55 W	5.86
02	01	860928	18.52	64	05	61	02	01	3	032	03 30 N	081 55 W	0.31
02	02	860928	18.52	05	61	64	02	01	3	032	03 30 N	081 55 W	1.23
02	03	860928	18.52	55	38	63	02	01	3	032	03 30 N	081 55 W	7.10
02	04	860928	18.52	38	63	55	02	01	3	032	03 30 N	081 55 W	1.23
03	01	860928	18.52	64	61	05	4	035	4	035	04 03 N	081 35 W	6.17
03	02	860928	18.52	61	05	64	4	035	4	035	04 03 N	081 35 W	6.17
03	03	860928	18.52	05	64	61	12	12	3	032	04 11 N	081 25 W	3.09
04	01	860928	18.52	64	61	05	08	12	3	032	04 11 N	081 25 W	1.54
05	01	860928	18.52	63	38	55	08	01	2	032	04 19 N	081 20 W	6.17
05	02	860928	18.52	38	55	63	08	01	2	032	04 19 N	081 20 W	1.85
05	03	860928	18.52	18.52	38	63	08	01	2	032	04 19 N	081 20 W	4.32

Table 2. (continued)

series	Leg	Date	Speed Km/Hr	Observer Codes	Sun Position Horz. Vert.	Beauf. No.	Course (Deg.)	Position Latitude Longitude	KM In Leg		
05	04	860928	18.52	55	63	38	08	01	2	032	4.32
05	05	860928	18.52	55	63	38	08	01	2	032	1.85
05	06	860928	18.52	63	38	55	08	01	2	032	6.17
05	07	860928	18.52	38	55	63	08	01	2	032	4.94
05	08	860928	18.52	38	55	63	08	01	2	032	1.23
05	09	860928	18.52	55	63	38	08	02	2	032	8.03
05	10	860928	18.52	64	61	05	05	02	2	032	6.17
05	11	860928	18.52	61	05	64	08	02	3	032	3.09
05	12	860928	18.52	61	05	64	05	03	3	032	1.54
06	01	860928	18.52	61	64	38	08	02	3	032	5.25
01	01	860929	18.52	38	61	55	08	03	3	031	4.63
01	02	860929	18.52	38	61	55	08	03	3	027	1.54
01	03	860929	18.52	61	55	38	08	02	3	027	3.09
01	04	860929	18.52	63	64	05	02	02	3	027	4.32
01	05	860929	18.52	63	64	05	02	02	3	027	2.78
01	06	860929	18.52	61	55	38	02	02	3	027	1.85
01	07	860929	18.52	61	55	38	20	00	3	000	1.85
01	08	860929	18.52	55	38	20	00	00	3	000	1.85
01	09	860929	18.52	55	38	61	05	00	3	032	1.85
02	01	860929	18.52	55	38	61	55	00	3	032	1.85
02	02	860929	18.52	38	61	55	05	00	3	032	1.85
02	03	860929	18.52	63	64	05	05	00	3	032	1.85
02	04	860929	18.52	64	20	63	05	00	2	032	2.78
03	01	860929	18.52	64	20	63	02	02	2	032	1.23
03	02	860929	18.52	64	20	63	02	01	1	032	1.23
03	03	860929	18.52	05	63	64	02	01	1	032	6.48
03	04	860929	18.52	63	64	05	02	01	1	032	3.09
03	05	860929	18.52	63	64	05	05	01	1	032	2.47
04	01	860929	18.52	64	05	63	02	01	1	032	1.54
04	02	860929	18.52	64	05	63	02	01	1	032	4.63
04	03	860929	18.52	05	63	64	02	01	1	032	1.54
05	01	860929	18.52	38	61	55	03	01	1	042	6.17
05	02	860929	18.52	61	55	38	12	12	1	042	0.62
05	03	860929	18.52	61	55	38	12	12	1	042	1.54
05	04	860929	18.52	63	05	64	12	12	1	042	1.54
05	05	860929	18.52	63	05	64	05	05	1	085	3.09
05	06	860929	18.52	63	05	64	05	06	1	042	0.62

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Left Right	Codes Rec.	Sun Position		Beauf. No.	Course (Deg.)	Position		KM In Leg		
						Horz.	Vert.			Latitude	Longitude			
01	01	860930	18.52	63	64	05	03	3	000	08 17 N	079 29 W	3.70		
01	02	860930	18.52	63	64	05	03	3	000	08 17 N	079 29 W	3.09		
01	03	860930	18.52	64	05	63	03	3	000	08 25 N	079 29 W	7.72		
01	04	860930	18.52	38	61	55	03	3	000	08 45 N	079 29 W	3.09		
01	01	861004	21.67	55	38	61	55	2	180	08 35 N	079 29 W	7.22		
01	02	861004	21.67	38	61	55	38	2	180	08 35 N	079 29 W	9.03		
01	03	861004	21.67	61	55	38	38	1	180	08 26 N	079 28 W	3.97		
01	04	861004	20.00	61	55	38	61	1	180	08 20 N	079 27 W	2.33		
02	01	861004	20.00	55	38	61	55	1	165	08 20 N	079 27 W	2.67		
03	01	861004	20.00	64	05	63	05	1	180	08 17 N	079 29 W	4.33		
03	02	861004	20.00	64	05	63	05	1	180	08 12 N	079 27 W	7.33		
03	03	861004	20.00	05	63	64	05	1	180	06 51 N	080 37 W	2.59		
03	04	861004	19.45	63	64	05	05	4	258	06 50 N	080 39 W	2.16		
01	01	861005	18.52	63	55	05	05	4	258	06 44 N	081 02 W	4.94		
02	01	861005	18.52	55	05	63	05	4	258	06 44 N	081 15 W	6.48		
02	02	861005	18.52	61	64	38	55	4	258	06 44 N	081 28 W	6.17		
02	03	861005	18.52	05	63	55	05	7	02	06 44 N	081 15 W	7.10		
02	04	861005	18.52	63	55	05	05	7	02	06 44 N	081 02 W	6.17		
02	05	861005	18.52	55	05	63	07	4	258	06 44 N	081 02 W	6.17		
02	06	861005	18.52	64	38	61	64	7	02	06 44 N	081 02 W	6.17		
03	01	861005	18.52	38	61	64	38	7	01	06 44 N	081 02 W	7.41		
03	02	861005	18.52	61	64	38	07	01	3	258	06 44 N	081 02 W	1.23	
03	03	861005	18.52	55	63	05	05	7	01	06 44 N	081 02 W	3.09		
03	04	861005	18.52	63	05	55	07	01	3	258	06 44 N	081 02 W	6.17	
04	01	861005	18.52	63	05	55	07	01	3	258	06 44 N	081 02 W	4.94	
04	02	861005	18.52	05	55	63	07	01	4	258	06 44 N	081 02 W	4.63	
04	03	861005	18.52	05	55	63	07	01	4	258	06 44 N	081 02 W	1.54	
04	04	861005	18.52	61	64	38	08	12	4	258	06 44 N	081 02 W	5.25	
04	05	861005	18.52	55	63	05	08	12	4	258	06 44 N	081 02 W	0.93	
04	06	861005	18.52	63	05	55	08	12	4	258	06 44 N	081 02 W	3.09	
04	07	861005	18.52	64	38	61	12	12	4	258	06 44 N	081 02 W	5.56	
05	01	861005	18.52	64	38	61	64	12	12	4	259	06 41 N	081 41 W	6.17
05	02	861005	18.52	38	61	64	38	12	12	4	259	06 41 N	081 42 W	5.25
05	03	861005	18.52	61	64	38	61	12	12	3	259	06 40 N	081 41 W	0.93
05	04	861005	18.52	64	38	61	05	12	12	2	259	06 41 N	081 42 W	3.09
06	01	861005	18.52	55	63	05	05	12	12	2	259	06 41 N	081 42 W	5.56
07	01	861005	18.52	55	63	05	05	12	12	2	259	06 41 N	081 42 W	6.17

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes		Sun Position Horz. Vert.	Beauf. No. (Deg.)	Position Latitude Longitude		KM In Leg
				Left	Right			06 40 N	081 45 W	
08	01	861005	18.52	63	05	55	12	12	2	259
08	02	861005	18.52	05	55	63	12	01	2	259
08	03	861005	18.52	55	63	05	12	01	2	259
08	04	861005	18.52	63	05	55	12	01	2	259
09	01	861005	18.52	61	38	64	12	02	2	259
09	02	861005	18.52	38	64	61	12	02	2	259
09	03	861005	18.52	64	61	38	12	02	3	259
10	01	861005	18.52	64	61	38	12	03	2	259
10	02	861005	18.52	61	38	64	12	03	2	259
10	03	861005	18.52	61	38	64	12	03	2	259
01	01	861006	18.52	64	61	38	12	03	4	257
01	02	861006	18.52	55	63	05	12	03	4	257
01	03	861006	18.52	61	64	38	61	05	4	257
01	04	861006	18.52	64	38	61	64	38	4	257
01	05	861006	18.52	38	61	64	38	61	4	257
01	06	861006	18.52	38	61	64	38	61	4	257
01	07	861006	18.52	38	61	64	38	61	4	257
01	08	861006	18.52	61	64	38	61	64	4	257
01	09	861006	18.52	61	64	38	61	64	4	257
01	10	861006	18.52	64	38	61	64	38	5	257
01	01	861007	16.11	38	64	61	03	02	5	257
01	02	861007	16.11	64	61	38	03	03	5	257
01	03	861007	16.11	61	38	64	03	02	5	257
01	04	861007	16.11	38	64	61	03	03	4	180
01	05	861007	16.11	64	61	38	03	03	4	180
01	06	861007	16.11	61	38	64	03	02	5	180
01	07	861007	16.11	61	38	64	03	02	5	180
01	08	861008	16.48	38	61	63	03	03	4	180
01	09	861008	16.48	64	61	55	05	03	5	180
01	10	861008	16.48	64	61	38	61	09	03	180
01	03	861008	16.48	38	61	63	38	61	09	180
01	04	861008	16.48	38	61	63	38	61	09	180
01	05	861008	16.48	64	61	38	61	09	03	180
01	06	861008	16.48	63	38	61	63	38	03	180
01	07	861008	16.48	38	61	63	61	09	03	180
01	08	861008	16.48	38	61	63	61	09	02	180
01	09	861008	16.48	64	61	38	63	38	09	02
01	10	861008	16.48	64	61	55	05	05	09	02

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes			Sun Position		Beauf. No.	Course (Deg.)	Position		RM In Leg
				Left	Right	Rec.	Horz.	Vert.			Latitude	Longitude	
01	11	861008	16.48	64	55	05	09	02	5	180	03 16 N	087 10 W	0.27
01	01	861009	16.67	55	64	05	6	6	6	188	00 09 N	087 29 W	1.94
01	02	861009	16.67	63	61	38	6	6	6	188			5.00
01	03	861009	16.67	55	64	05	55	6	6	188			5.56
01	04	861009	16.67	64	05	55	6	6	6	188			5.56
01	05	861009	16.67	05	55	64	09	02	6	188			4.44
01	06	861009	16.67	05	55	64	09	02	6	188			1.11
01	07	861009	16.67	55	64	05	09	02	6	188			2.22
01	08	861009	16.67	55	64	05	09	02	6	188			1.94
02	01	861009	16.67	61	38	63	5	5	5	188	00 12 S	087 31 W	5.56
02	02	861009	16.67	38	63	61	5	5	5	188			5.56
02	03	861009	16.67	63	61	38	5	5	5	188			5.56
02	04	861009	16.67	61	38	63	5	5	5	188			5.56
02	05	861009	16.67	38	63	61	5	5	5	188			5.56
02	06	861009	16.67	63	61	38	09	12	5	188			3.33
02	07	861009	16.67	05	64	55	09	12	5	188			3.89
02	08	861009	16.67	05	64	55	09	12	5	188			0.56
03	01	861009	16.67	64	55	05	5	5	5	191	00 36 S	087 30 W	2.22
03	02	861009	16.67	63	61	38	5	5	5	191			3.06
03	03	861009	16.67	63	61	38	5	5	5	191			2.22
03	04	861009	16.67	64	55	05	5	5	5	191			3.33
03	05	861009	16.67	55	05	64	12	12	5	191			5.56
03	06	861009	16.67	05	64	55	12	12	5	191			4.44
03	07	861009	16.67	05	64	55	5	5	5	191			0.56
03	08	861009	16.67	38	63	61	5	5	5	191			5.56
03	09	861009	16.67	63	61	38	5	5	5	191	00 53 S	087 34 W	5.56
03	10	861009	16.67	61	38	63	5	5	5	191			5.56
03	11	861009	16.67	38	63	61	03	12	5	191	01 00 S	087 35 W	5.56
03	12	861009	16.67	63	61	38	02	12	5	189	01 02 S	087 38 W	1.67
04	01	861009	17.59	64	55	05	64	02	4	189			5.86
04	02	861009	17.59	55	05	64	02	12	4	189			6.16
04	03	861009	17.59	55	05	64	01	4	4	189			2.35
04	04	861009	17.59	05	64	55	03	01	4	189			2.64
04	05	861009	17.59	64	55	05	03	01	4	189			1.17
04	06	861009	17.59	63	61	38	03	02	4	189			
04	07	861009	17.59	63	61	38	03	02	4	189			
04	08	861009	17.59	05	64	55	03	02	4	189			

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes	Sum Position Horz. Vert.	Beauf. Course (Deg.)	Position Latitude Longitude	KM In Leg
				Left Right Rec.	Sum Position Horz. Vert.	No.		
05	01	861009	18.52	63	61	38	01 23 S 087 43 W	6.17
05	02	861009	18.52	61	38	63	01 186	6.17
05	03	861009	18.52	61	38	63	01 30 S 087 44 W	0.31
01	01	861010	17.59	63	61	38	01 274	2.35
02	01	861010	18.52	61	38	63	01 274	6.17
02	02	861010	18.52	38	63	61	01 274	2.47
02	03	861010	18.52	64	55	05	01 274	5.56
03	01	861010	18.52	38	63	61	01 274	4.32
03	02	861010	18.52	05	64	55	01 274	6.17
03	03	861010	18.52	64	55	05	02 4	1.54
03	04	861010	18.52	64	55	05	02 4	4.63
03	05	861010	18.52	55	05	64	02 4	6.17
03	06	861010	18.52	05	64	55	01 4	6.17
03	07	861010	18.52	64	55	05	01 4	6.17
03	08	861010	18.52	55	05	64	01 4	6.17
03	09	861010	18.52	63	61	38	01 4	4.63
04	01	861010	18.52	61	38	63	12 12	6.17
04	02	861010	18.52	38	63	61	01 42 S 089 51 W	1.23
04	03	861010	9.26	38	63	61	01 42 S 089 51 W	0.62
04	04	861010	18.52	38	63	61	01 42 S 089 51 W	0.93
04	05	861010	18.52	64	55	05	12 12	3.40
05	01	861010	18.52	55	05	64	01 280	2.78
06	01	861010	18.52	05	64	55	01 285	0.90
06	02	861010	18.52	64	55	05	01 285	0.90
06	03	861010	18.52	38	63	61	01 285	2.16
07	01	861010	18.52	38	63	61	01 275	2.78
07	02	861010	18.52	63	61	38	01 275	0.86
07	03	861010	18.52	61	38	63	01 275	4.63
08	01	861010	18.52	55	64	05	01 275	5.56
08	02	861010	18.52	61	63	38	01 275	1.54
08	03	861010	18.52	64	05	55	01 275	3.40
01	01	861011	18.52	63	61	05	01 270	1.23
01	02	861011	18.52	61	05	63	01 270	5.56
02	01	861011	18.52	05	63	61	01 270	1.85
02	02	861011	18.52	63	61	05	01 270	3

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes			Sun Position Horz. Vert.	Beauf. No. (Deg.)	Position Latitude Longitude			RM In Leg	
				Left	Right	Rec.			3	270	01 26 S		
03	01	861011	18.52	63	61	05			3	270	01 26 S	092 53 W	4.63
03	02	861011	18.52	64	38	55			3	270	01 26 S	093 00 W	6.17
03	03	861011	18.52	38	55	64			3	270	01 26 S	093 00 W	1.54
04	01	861011	18.52	38	55	64			3	270	01 26 S	093 00 W	3.09
04	02	861011	18.52	55	64	38			3	270	01 26 S	093 00 W	6.17
04	03	861011	18.52	64	38	55			3	270	01 26 S	093 00 W	5.56
05	01	861011	18.52	38	55	64			3	270	01 22 S	093 13 W	5.56
05	02	861011	18.52	61	63	05			3	270	01 22 S	093 13 W	6.17
05	03	861011	18.52	63	05	61			4	270	01 22 S	093 13 W	6.17
05	04	861011	18.52	05	61	63			4	270	01 22 S	093 13 W	3.09
05	05	861011	18.52	05	61	63			4	336	00 48 S	093 42 W	4.32
05	06	861011	18.52	61	63	05			4	336	00 48 S	093 42 W	6.79
05	07	861011	18.52	63	05	61			4	336	00 48 S	093 42 W	6.48
05	08	861011	18.52	64	55	38			5	336	00 48 S	093 42 W	6.17
05	09	861011	18.52	55	38	64			5	336	00 48 S	093 42 W	6.17
05	10	861011	18.52	38	64	55			5	336	00 48 S	093 42 W	6.17
05	11	861011	18.52	64	55	38			4	336	00 48 S	093 42 W	6.17
05	12	861011	18.52	55	38	64			4	336	00 48 S	093 42 W	6.17
05	13	861011	18.52	38	64	55			4	336	00 48 S	093 42 W	7.72
05	14	861011	18.52	63	61	05			4	336	00 48 S	093 42 W	6.17
05	15	861011	18.52	61	05	63			4	336	00 48 S	093 42 W	6.17
05	16	861011	18.52	05	63	61			4	336	00 48 S	093 42 W	6.17
05	17	861011	18.52	05	63	61			4	336	00 48 S	093 42 W	2.47
05	18	861011	18.52	63	61	05			4	336	00 48 S	093 42 W	6.17
05	19	861011	18.52	61	05	63			4	336	00 48 S	093 42 W	6.17
05	20	861011	18.52	05	63	61			4	336	00 48 S	093 42 W	12.35
05	21	861011	18.52	64	38	55			4	336	00 48 S	093 42 W	1.85
06	01	861012	18.52	55	64	38			3	336	00 48 S	093 42 W	6.17
06	02	861012	18.52	64	38	55			5	339	01 16 N	094 40 W	2.47
01	01	861012	18.52	38	55	64			5	339	01 16 N	094 40 W	6.17
01	02	861012	18.52	55	64	38			5	338	01 24 N	094 42 W	4.32
02	01	861012	18.52	55	64	38			5	338	01 24 N	094 42 W	2.16
02	02	861012	18.52	55	64	38			5	338	01 24 N	094 42 W	6.17
02	03	861012	18.52	64	38	55			5	338	01 24 N	094 42 W	4.63
02	04	861012	18.52	63	05	04			5	338	01 24 N	094 42 W	1.54
02	05	861012	18.52	61	05	04			5	338	01 24 N	094 42 W	6.17
02	06	861012	18.52	61	05	04			5	338	01 24 N	094 42 W	4.63

Table 2. (continued)

Series	Leg	Date	Speed Kn/Hr	Observer Codes		Sun Position	Beauf. Horz.	Course No.	(Deg.)	Latitude Longitude	Position KM In Leg
				Left	Right	Vert.					
02	07	861012	18.52	05	63	61	5	338	6.17	6.17	6.17
02	08	861012	18.52	63	61	05	5	338	6.17	6.17	2.78
02	09	861012	18.52	61	05	63	04	02	3.40	3.40	3.40
02	10	861012	18.52	61	05	63	04	01	6.79	6.79	6.79
02	11	861012	18.52	05	63	61	38	04	6.17	6.17	6.17
02	12	861012	18.52	55	64	38	04	01	6.48	6.48	6.48
02	13	861012	18.52	64	38	55	04	01	6.79	6.79	6.79
03	01	861012	18.52	63	61	05	12	12	5	338	5
03	02	861012	18.52	55	64	38	05	12	5	338	5
03	03	861012	18.52	64	38	55	12	12	5	338	5
03	04	861012	18.52	61	63	05	12	12	5	338	5
03	05	861012	18.52	63	05	61	61	12	5	338	5
03	06	861012	18.52	05	61	63	12	12	5	338	5
03	07	861012	18.52	05	61	63	12	12	6	338	6.17
03	08	861012	18.52	61	63	05	12	12	6	338	6.17
03	09	861012	18.52	63	05	61	12	12	6	338	6.17
03	10	861012	18.52	63	05	61	61	12	6	338	6.17
03	11	861012	18.52	05	61	63	6	6	6	338	6.17
03	12	861012	18.52	55	64	38	64	09	12	6	338
03	13	861012	18.52	55	64	55	38	64	12	6	338
03	14	861012	18.52	64	55	38	64	09	12	6	338
03	15	861012	18.52	55	64	55	38	64	12	6	338
03	16	861012	18.52	38	64	55	38	64	12	6	338
03	17	861012	18.52	64	55	38	64	09	12	6	338
03	18	861012	18.52	61	63	05	61	61	12	6	338
03	19	861012	18.52	63	05	61	63	05	12	6	338
03	20	861012	18.52	55	38	64	05	61	12	6	338
03	21	861012	18.52	63	05	61	63	05	12	6	338
03	22	861012	18.52	05	61	63	05	61	12	6	338
03	23	861012	18.52	05	61	63	05	61	12	6	338
01	01	861014	16.67	55	61	05	5	269	02 40 N	100 42 W	3.89
01	02	861014	16.67	55	61	05	5	269	02 40 N	100 42 W	1.67
02	01	861014	16.67	61	05	55	5	269	02 40 N	100 47 W	0.28
03	01	861014	16.67	61	05	55	07	01	5	269	02 40 N
03	02	861014	16.67	61	05	55	07	01	5	269	02 40 N
03	03	861014	16.67	61	05	55	07	01	5	269	02 40 N
03	04	861014	16.67	05	55	61	07	01	5	269	02 40 N

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes			Sun Position		Beauf. No.	Course (Deg.)	Position			RM In Leg
				Left	Right	Rec.	Horz.	Vert.			Latitude	Longitude		
03	05	861014	16.67	55	61	05	07	01	5	269			4.44	
03	06	861014	16.67	55	61	05	05	01	5	269			2.50	
03	07	861014	16.67	61	05	55			5	269			2.22	
03	08	861014	16.67	63	64	38			5	269			5.56	
03	09	861014	16.67	64	38	63			5	269			5.56	
03	10	861014	16.67	38	63	64			5	269			5.56	
04	01	861014	16.67	63	64	38			5	269	02 42 N	101 12 W	5.56	
04	02	861014	16.67	64	38	63			5	269			6.39	
04	03	861014	16.67	05	61	55	12	12	5	269			5.56	
04	04	861014	16.67	61	55	05	12	12	5	269			7.22	
04	05	861014	16.67	55	05	61	12	12	5	269			2.50	
04	06	861014	16.67	55	05	61			5	269			3.06	
04	07	861014	16.67	05	61	55			5	269			5.56	
04	08	861014	16.67	61	55	05			5	269			5.56	
04	09	861014	16.67	55	05	61			5	269			3.33	
04	10	861014	16.67	63	38	64			6	269			5.56	
04	11	861014	16.67	38	64	63			6	269			5.56	
04	12	861014	16.67	64	38	64			6	269			5.56	
04	13	861014	16.67	63	38	64			6	269			5.56	
04	14	861014	16.67	38	64	63			6	269			5.56	
04	15	861014	16.67	63	64	38			6	269			5.83	
04	16	861014	16.67	55	05	61			6	269			5.56	
04	17	861014	16.67	61	05	55			6	269			2.78	
01	01	861015	22.22	55	61	20			6	269	02 39 N	104 22 W	7.41	
01	02	861015	22.22	61	20	55			6	269			4.07	
01	03	861015	22.22	20	55	61	06	03	6	269			1.48	
01	04	861015	22.22	20	55	61			6	269			7.41	
01	05	861015	22.22	38	64	63			6	255			1.85	
01	01	861016	22.22	64	63	38			6	255			7.78	
01	02	861016	22.22	63	38	64			6	255			6.17	
01	03	861016	22.22	38	64	63			6	255			6.17	
01	04	861016	22.22	61	55	05			6	255			4.32	
01	05	861016	18.52	38	64	63			6	255			6.17	
01	06	861016	18.52	64	63	38			6	255			3.70	
01	07	861016	18.52	63	38	64			6	255				
01	08	861016	18.52	61	05	55			6	255				
01	09	861016	18.52	05	55	61			6	255				

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes	Sun Position			Beauf. No.	Course (Deg.)	Position			KM In Leg
					Left	Right	Rec.			Latitude	Longitude		
01	10	861016	18.52	05	55	61		5	255	02 09 N	109 32 W	2.47	
01	11	861016	18.52	55	61	05		5	255			6.17	
01	12	861016	18.52	61	05	55		5	255			4.32	
01	13	861016	18.52	61	05	55		5	255			1.85	
01	14	861016	18.52	05	55	61		5	255			6.17	
01	15	861016	18.52	55	61	05		5	255			6.17	
01	16	861016	18.52	63	38	64		5	255	02 05 N	109 47 W	7.10	
01	17	861016	18.52	38	64	63		5	255			6.17	
01	18	861016	18.52	64	63	38		5	255			6.48	
01	19	861016	18.52	63	38	64		5	297			6.17	
01	20	861016	18.52	38	64	63	12	5	297			3.09	
01	21	861016	18.52	55	61	05	12	5	297			6.17	
01	22	861016	18.52	61	05	55	12	5	297			5.56	
01	01	861017	18.52	64	61	05	64	5	274	02 19 N	111 58 W	6.17	
01	02	861017	18.52	61	05	64		5	274			3.40	
01	03	861017	18.52	63	38	55	06	02	5	274		5.56	
01	04	861017	18.52	05	64	61	06	02	5	274		6.17	
01	05	861017	18.52	64	61	05	06	02	5	274		6.17	
01	06	861017	18.52	61	05	64		5	274			2.78	
01	07	861017	18.52	61	05	64		5	274			2.16	
01	08	861017	18.52	61	05	64		5	274			1.23	
01	09	861017	18.52	05	64	61		5	274			3.40	
01	10	861017	18.52	38	55	63	06	02	5	274		6.17	
01	11	861017	18.52	55	63	38	06	02	5	274		6.17	
01	12	861017	18.52	63	38	55	06	01	5	274		6.17	
01	13	861017	18.52	38	55	63	06	01	5	274		6.17	
01	14	861017	18.52	55	63	38	06	01	5	274	02 19 N	112 23 W	
01	15	861017	18.52	63	38	55	07	01	5	274			
01	16	861017	18.52	61	64	05	07	01	5	274			
01	17	861017	18.52	64	05	61	07	01	5	274	02 21 N	112 45 W	
01	18	861017	18.52	64	05	61		5	274			4.01	
01	19	861017	18.52	64	05	61	07	01	5	274		1.54	
01	20	861017	18.52	05	61	64	07	01	5	274		0.93	
01	21	861017	18.52	05	61	64	05	05	5	274		6.17	
01	22	861017	18.52	61	64	05	05	05	5	274		3.09	
01	23	861017	18.52	38	63	63	05	05	5	274		6.17	
01	24	861017	18.52	64	05	61			5	274	02 23 N	112 58 W	

Table 2. (continued)

series	Leg	Date	Speed Km/Hr	Observer Codes			Sun Position		Beauf. No.	Course (Deg.)	Latitude Longitude	Position In Leg	KM
				Left	Right	Rec.	Horz.	Vert.					
01	25	861017	18.52	63	55	38	5	274	5	274	02 24 N	113 09 W	6.17
01	26	861017	18.52	55	38	63	5	274	5	274	02 24 N	113 09 W	6.79
01	27	861017	18.52	38	63	55	11	12	5	274	02 24 N	113 20 W	6.17
01	28	861017	18.52	63	55	38	11	12	5	274	02 24 N	113 28 W	6.17
01	29	861017	18.52	55	38	63	11	12	5	274	02 31 N	113 28 W	5.25
01	30	861017	18.52	38	63	55	11	12	5	274	02 31 N	113 28 W	5.56
01	31	861017	18.52	61	64	05	11	12	5	272	02 30 N	113 37 W	6.17
02	01	861017	18.52	64	05	61	11	01	5	272	02 30 N	113 37 W	4.94
02	02	861017	18.52	05	61	64	11	01	5	272	02 30 N	113 37 W	0.62
02	03	861017	18.52	61	64	05	11	02	5	272	02 30 N	113 37 W	5.86
03	01	861017	18.52	55	38	63	11	02	5	273	02 30 N	113 37 W	6.17
03	02	861017	18.52	55	38	63	11	02	5	273	02 30 N	113 37 W	6.17
03	03	861017	18.52	38	63	55	11	02	5	273	02 30 N	113 37 W	6.48
03	04	861017	18.52	63	55	38	11	02	5	273	02 30 N	113 37 W	3.09
03	05	861017	18.52	55	38	63	11	02	5	273	02 30 N	113 37 W	6.17
03	06	861017	18.52	38	63	55	11	02	5	273	02 30 N	113 37 W	2.78
01	01	861018	18.52	38	63	55	06	02	6	258	02 42 N	115 50 W	0.31
01	02	861018	18.52	63	55	38	06	02	6	258	02 42 N	115 50 W	6.17
01	03	861018	18.52	55	38	63	06	02	6	258	02 42 N	115 50 W	2.78
01	04	861018	18.52	55	38	63	06	02	6	258	02 42 N	115 50 W	0.31
02	01	861018	18.52	64	61	05	06	02	6	288	02 40 N	116 06 W	6.17
02	02	861018	18.52	61	05	64	06	02	6	288	02 40 N	118 47 W	6.17
02	03	861018	18.52	61	64	05	06	03	5	284	03 52 N	118 54 W	6.17
01	01	861019	18.52	64	05	61	06	03	5	284	03 52 N	118 54 W	4.63
01	02	861019	18.52	05	61	64	06	03	5	284	03 52 N	118 54 W	2.16
01	03	861019	18.52	63	38	55	06	03	5	274	03 52 N	118 54 W	6.17
01	04	861019	18.52	63	38	55	06	03	5	274	03 52 N	118 54 W	4.94
02	01	861019	18.52	63	38	55	06	03	5	274	03 52 N	118 54 W	6.17
02	02	861019	18.52	38	55	63	38	55	5	274	03 52 N	118 54 W	6.17
02	03	861019	18.52	55	63	38	55	63	5	274	03 52 N	118 54 W	6.17
02	04	861019	18.52	63	38	55	63	38	5	274	03 52 N	118 54 W	2.16
02	05	861019	18.52	64	05	61	64	05	5	274	03 52 N	118 54 W	6.17
02	06	861019	18.52	55	63	38	55	63	5	274	04 00 N	119 12 W	6.17
03	01	861019	18.52	61	64	05	61	64	5	264	04 00 N	119 12 W	6.17
03	02	861019	18.52	05	61	64	12	12	5	264	04 00 N	119 12 W	6.17
03	03	861019	18.52	61	64	05	12	12	6	264	04 00 N	119 12 W	2.16

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes		Sun Position	Beauf. No.	Course (Deg.)	Position Latitude	Position Longitude	KM In Leg
				Left	Right	Horz.	Vert.				
03	05	861019	18.52	63	55	38	12	12	6	264	6.79
03	06	861019	18.52	55	38	63	12	12	6	264	1.54
04	01	861019	18.52	63	38	55			5	284	6.48
04	02	861019	18.52	38	55	63			5	284	6.17
04	03	861019	18.52	55	63	38			5	284	4.63
04	04	861019	18.52	55	63	38			5	284	0.31
01	01	861020	18.52	55	61	38			5	285	6.17
01	02	861020	18.52	61	38	55			5	285	3.70
02	01	861020	18.52	64	63	05			5	285	5.86
02	02	861020	18.52	38	55	61			5	285	6.17
02	03	861020	18.52	55	61	38			5	285	6.79
02	04	861020	18.52	63	64	05			5	285	6.17
02	05	861020	18.52	64	05	63			5	285	6.17
02	06	861020	18.52	05	63	64			6	285	6.17
02	07	861020	18.52	63	64	05			6	285	6.17
02	08	861020	18.52	64	05	63			6	285	3.09
03	01	861020	18.52	38	61	55			6	284	6.17
03	02	861020	18.52	61	55	38			6	284	6.17
03	03	861020	18.52	55	38	61			6	284	6.79
03	04	861020	18.52	38	61	55			6	284	3.40
01	01	861021	18.52	63	64	05			5	282	6.17
01	02	861021	18.52	64	05	63			5	282	2.47
01	03	861021	18.52	64	05	63			5	282	2.78
01	04	861021	18.52	61	38	55			5	282	7.10
01	05	861021	18.52	05	63	64			5	282	6.17
01	06	861021	18.52	63	64	05			5	282	2.16
01	07	861021	12.96	63	64	05			5	282	2.81
01	08	861021	12.96	64	05	63			5	282	4.32
01	09	861021	12.96	55	38	61			5	282	4.32
01	10	861021	18.52	38	61	55			5	282	6.17
01	11	861021	18.52	61	55	38			5	282	6.48
01	12	861021	18.52	55	38	61			5	282	6.17
01	13	861021	18.52	38	61	55			5	282	6.17
01	14	861021	18.52	61	55	38			5	282	3.09
01	15	861021	18.52	64	63	05			5	282	6.17
01	16	861021	18.52	63	05	64			5	282	6.17
01	17	861021	18.52	05	64	63			6	282	

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes		Sun Position		Beauf. No.	Course (Deg.)	Position		KM In Leg
				Left	Right	Horz.	Vert.			Latitude	Longitude	
02	01	861021	18.52	61	55	38		5	283	05 28 N	125 35 W	5.25
02	02	861021	18.52	64	63	05		5	283			4.94
02	03	861021	18.52	64	63	05		5	283			1.23
02	04	861021	18.52	63	05	64		5	283			5.25
02	05	861021	18.52	61	55	38		5	283			6.17
02	06	861021	18.52	61	38	55		09	12	5	283	1.23
02	07	861021	18.52	61	38	55		09	12	5	283	2.78
03	01	861021	18.52	38	55	61		12	12	5	283	3.40
03	02	861021	18.52	38	55	61		12	12	5	283	4.32
03	03	861021	18.52	55	61	38		11	12	5	283	4.63
03	04	861021	18.52	55	61	05		11	12	5	283	6.17
03	05	861021	18.52	64	05	63		11	12	5	283	6.17
03	06	861021	18.52	05	63	64		11	12	5	283	4.94
03	07	861021	18.52	05	63	64		11	12	5	283	1.23
03	08	861021	18.52	63	64	05		11	02	5	283	6.17
03	09	861021	18.52	64	05	63		11	02	5	283	6.17
03	10	861021	18.52	05	63	64		11	02	5	283	3.09
03	11	861021	18.52	05	63	64		11	02	5	283	2.16
03	12	861021	18.52	05	63	64		10	02	5	283	2.16
03	13	861021	18.52	61	38	55		10	02	5	283	6.48
03	14	861021	18.52	64	63	05		10	02	5	283	6.79
03	15	861021	18.52	38	55	61		10	02	5	283	6.17
03	16	861021	18.52	55	61	38		10	02	5	283	6.17
03	17	861021	18.52	61	38	55		10	02	5	283	2.16
01	01	861022	18.52	38	61	55		07	03	4	260	3.09
01	02	861022	18.52	61	55	38		07	03	4	260	3.70
01	03	861022	18.52	61	55	38		07	03	4	260	1.85
01	04	861022	18.52	63	64	05		07	03	4	260	3.40
01	05	861022	18.52	63	64	05		07	03	4	260	6.17
01	06	861022	18.52	61	55	38		07	03	4	260	6.17
01	07	861022	18.52	55	38	61		07	02	5	260	6.17
01	08	861022	18.52	38	61	55		07	02	5	260	6.17
01	09	861022	18.52	61	55	38		07	02	5	260	3.09
01	10	861022	18.52	64	63	05		07	02	5	260	6.17
01	11	861022	18.52	63	64	05		07	02	5	260	6.48
01	12	861022	18.52	05	64	63		07	02	5	260	6.17
01	13	861022	18.52	64	63	05		07	01	5	260	6.17

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes			Sun Position	Position Latitude Longitude	KM In Leg
				Left	Right	Rec.	Horz. Vert.	No. (Deg.)	
01	14	861022	18.52	63	05	64	07	01	5
01	15	861022	18.52	05	64	63	07	01	5
01	16	861022	18.52	61	38	55	08	12	5
01	17	861022	18.52	38	55	61	08	12	5
01	18	861022	18.52	55	61	38	08	12	5
01	19	861022	18.52	64	05	63	08	12	5
01	20	861022	18.52	61	38	55	08	12	5
02	01	861022	18.52	38	55	61	12	12	5
02	02	861022	18.52	05	61	64	12	12	5
02	03	861022	18.52	63	64	05	12	12	5
02	04	861022	18.52	64	05	63	12	12	5
02	05	861022	18.52	05	63	64	12	12	5
02	06	861022	18.52	63	64	05	12	12	5
02	07	861022	18.52	64	05	63	11	01	5
02	08	861022	18.52	55	38	61	11	01	5
02	09	861022	18.52	38	61	55	11	01	5
02	10	861022	18.52	38	61	55	11	01	5
02	11	861022	18.52	38	61	55	11	01	5
02	12	861022	18.52	61	55	38	11	01	5
02	13	861022	18.52	55	38	61	11	01	5
02	14	861022	18.52	38	61	55	12	01	5
02	15	861022	18.52	61	55	38	12	02	5
02	16	861022	18.52	55	38	61	12	02	4
03	01	861022	18.52	55	38	61	12	02	5
03	02	861022	18.52	63	64	05	12	02	5
03	03	861022	18.52	64	05	63	12	02	5
03	04	861022	18.52	05	63	64	12	02	5
03	05	861022	18.52	63	64	05	12	03	5
03	06	861022	18.52	64	05	63	12	03	5
03	07	861022	18.52	64	05	63	12	03	5
03	08	861022	18.52	64	05	63	12	03	5
01	01	861023	18.52	55	63	05	07	03	5
01	02	861023	18.52	63	05	55	07	03	5
01	03	861023	18.52	05	55	63	07	03	5
01	04	861023	18.52	55	63	05	07	02	5
01	05	861023	18.52	61	64	38	07	02	5
01	06	861023	18.52	55	63	05	07	02	5
01	07	861023	18.52	63	05	55	07	02	5

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes	Sun Position	Beauf. No.	Course (Deg.)	Latitude Longitude	KM In Leg	
				Left	Right	Rec.	Horz.	Vert.		
01	08	861023	18.52	64	38	61	07	02	5	259
01	09	861023	18.52	38	61	64	07	02	5	259
01	10	861023	18.52	61	64	38	07	02	5	259
02	01	861023	18.52	64	38	61	07	01	5	258
03	01	861023	18.52	55	63	05	07	01	5	258
03	02	861023	18.52	63	05	55	08	01	5	258
03	03	861023	18.52	05	55	63	08	01	5	258
03	04	861023	18.52	55	63	05	08	01	5	258
03	05	861023	18.52	63	05	55	09	12	5	258
03	06	861023	18.52	05	55	63	09	12	5	258
03	07	861023	18.52	38	61	64	09	12	4	258
03	08	861023	18.52	61	64	38	09	12	4	258
03	09	861023	18.52	64	38	61	12	12	4	258
03	10	861023	18.52	38	61	64	12	12	4	258
04	01	861023	18.52	61	64	38	11	01	4	258
04	02	861023	18.52	64	38	61	11	01	4	258
04	03	861023	18.52	63	55	05	11	01	4	258
04	04	861023	18.52	55	05	63	11	01	4	258
04	05	861023	18.52	05	63	55	12	01	4	258
04	06	861023	18.52	63	55	05	12	01	4	258
04	07	861023	18.52	55	05	63	12	01	4	258
04	08	861023	18.52	05	63	55	12	01	4	258
04	09	861023	18.52	61	64	38	12	02	4	258
04	10	861023	18.52	64	38	61	12	02	4	258
04	11	861023	18.52	64	38	61	12	02	4	258
04	12	861023	18.52	38	61	64	12	02	4	258
05	01	861023	18.52	55	63	05	12	02	4	256
05	02	861023	18.52	61	64	38	12	03	4	256
05	03	861023	18.52	61	64	38	12	03	4	256
05	04	861023	18.52	64	38	61	12	03	4	256
01	01	861024	18.52	64	61	38	07	02	3	249
02	01	861024	18.52	63	55	05	07	02	2	249
02	02	861024	18.52	63	55	05	07	02	2	249
02	03	861024	18.52	64	61	38	07	02	2	249
02	04	861024	18.52	61	38	64	07	02	2	249
03	01	861024	18.52	55	05	63	07	02	2	249
03	02	861024	18.52	05	63	55	08	01	2	249

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes		Sun Position Horz.	Position Vert.	Beauf. No.	Course (Deg.)	Latitude Longitude	KM In Leg
				Left	Right Rec.						
03	03	861024	18.52	63	55	05	08	01	2	249	6.17
03	04	861024	18.52	55	05	63	08	01	2	249	6.79
03	05	861024	18.52	05	63	55	08	01	2	249	9.88
03	06	861024	18.52	38	64	61	08	01	3	249	6.17
03	07	861024	18.52	64	61	38	08	01	3	249	6.17
03	08	861024	18.52	61	38	64	12	12	3	249	6.17
03	09	861024	18.52	38	64	61	12	12	3	249	6.17
03	10	861024	18.52	64	61	38	12	12	3	249	6.17
03	11	861024	18.52	61	38	64	12	12	3	249	2.16
03	12	861024	18.52	55	63	05	12	12	3	249	6.48
03	13	861024	18.52	63	05	55	12	12	3	249	6.17
03	14	861024	18.52	05	55	63	12	12	3	249	5.56
03	15	861024	18.52	05	55	63	12	12	3	249	3.70
03	16	861024	18.52	55	63	05	12	12	3	249	6.17
03	17	861024	18.52	63	05	55	12	12	3	249	3.09
03	18	861024	18.52	63	55	05	12	12	3	249	6.17
03	19	861024	18.52	61	64	38	12	12	3	249	6.17
03	20	861024	18.52	64	38	61	12	01	3	249	6.17
03	21	861024	18.52	38	61	64	12	01	3	249	2.16
03	22	861024	18.52	61	64	38	12	01	3	249	6.17
03	23	861024	18.52	64	38	61	12	01	3	249	3.09
03	24	861024	18.52	64	38	61	12	01	3	249	1.85
03	25	861024	18.52	64	38	61	12	01	3	249	2.16
03	26	861024	18.52	38	61	64	38	12	01	3	249
03	27	861024	18.52	05	63	55	05	06	3	249	0.93
01	01	861025	18.52	05	63	55	05	06	03	4	290
01	02	861025	18.52	05	63	55	05	06	03	4	290
01	03	861025	18.52	63	55	05	06	03	4	290	4.63
01	04	861025	18.52	63	55	05	06	03	4	290	0.62
01	05	861025	18.52	63	55	05	06	03	4	290	0.93
01	06	861025	18.52	55	05	63	06	03	4	290	1.85
01	07	861025	18.52	38	61	64	06	03	4	290	6.17
01	08	861025	18.52	55	05	63	06	02	4	290	4.63
01	09	861025	18.52	05	63	55	05	06	02	4	290
01	10	861025	18.52	63	55	05	06	02	5	290	6.79
01	11	861025	18.52	64	61	38	06	02	5	290	5.25
01	12	861025	18.52	61	38	64	06	02	5	290	6.17

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes			Sun Position Horz. Vert.	Beauf. No.	Course (Deg.)	Position Latitude Longitude	KM In Leg
				Left	Right	Rec.					
01	13	861025	18.52	38	64	61	06	02	5	290	05 09 N 138 11 W
01	14	861025	18.52	64	61	38	06	01	5	290	05 09 N 138 11 W
01	15	861025	18.52	61	38	64	06	01	5	290	05 09 N 138 11 W
01	16	861025	18.52	38	64	61	06	01	5	290	05 09 N 138 11 W
01	17	861025	18.52	55	63	05	06	01	5	290	05 09 N 138 11 W
01	18	861025	18.52	63	05	55	07	01	5	290	05 09 N 138 11 W
01	19	861025	18.52	05	55	63	07	01	5	290	05 09 N 138 11 W
01	20	861025	18.52	55	63	05	07	12	5	290	05 09 N 138 11 W
01	21	861025	18.52	61	64	38	12	12	5	290	05 09 N 138 11 W
01	22	861025	18.52	63	05	55	12	12	5	290	05 09 N 138 11 W
01	23	861025	18.52	64	38	61	12	12	5	290	05 09 N 138 11 W
01	24	861025	18.52	38	61	64	12	12	5	290	05 09 N 138 11 W
01	25	861025	18.52	61	64	38	12	12	5	290	05 09 N 138 11 W
01	26	861025	18.52	64	38	61	12	12	5	290	05 09 N 138 11 W
01	27	861025	18.52	64	38	61	12	12	5	290	05 09 N 138 11 W
01	28	861025	18.52	38	61	64	11	01	5	290	05 09 N 138 11 W
01	29	861025	18.52	61	64	38	11	01	5	290	05 09 N 138 11 W
01	30	861025	18.52	55	05	63	11	01	5	290	05 09 N 138 11 W
01	31	861025	18.52	05	63	55	11	01	5	290	05 09 N 138 11 W
01	32	861025	18.52	63	55	05	11	01	5	290	05 09 N 138 11 W
01	33	861025	18.52	55	05	63	11	01	5	290	05 09 N 138 11 W
01	34	861025	18.52	05	63	55	10	01	5	290	05 09 N 138 11 W
01	35	861025	18.52	63	55	05	10	01	5	290	05 09 N 138 11 W
01	36	861025	18.52	64	61	38	11	02	5	290	05 09 N 138 11 W
02	01	861026	18.52	64	61	38	63	61	3	290	05 36 N 139 10 W
01	02	861026	18.52	38	63	61	38	61	3	290	05 41 N 139 34 W
01	03	861026	18.52	63	61	38	61	38	3	290	06 14 N 141 08 W
02	01	861026	18.52	64	55	05	05	12	3	290	06 21 N 141 28 W
02	02	861026	18.52	55	05	64	55	05	3	290	06 21 N 141 28 W
02	03	861026	18.52	05	64	55	05	64	3	290	06 23 N 141 36 W
03	01	861026	18.52	05	64	55	05	64	3	290	06 23 N 141 36 W
04	01	861026	18.52	64	55	05	05	64	2	291	06 27 N 141 44 W
04	02	861026	18.52	61	38	63	63	61	2	291	06 27 N 141 44 W
04	03	861026	18.52	38	63	61	38	63	2	291	06 27 N 141 44 W
04	04	861026	18.52	63	61	38	63	61	2	291	06 27 N 141 44 W

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes	Sun Position	Beauf. No.	Course (Deg.)	Latitude	Longitude	KM In Leg
				Left	Right	Horz.	Vert.			
05	01	861026	18.52	55	05	64	12	2	291	06 31 N 141 54 W 5.56
05	02	861026	18.52	63	61	38		2	291	
06	01	861026	18.52	63	61	38		2	291	06 31 N 142 00 W 3.70
06	02	861026	18.52	05	64	55		2	291	1.23
06	03	861026	18.52	64	55	05		2	291	6.17
07	01	861026	18.52	55	05	64	11	2	291	4.32
07	02	861026	18.52	05	64	55	11	2	291	4.63
07	03	861026	18.52	05	64	55	10	2	291	1.54
07	04	861026	18.52	64	55	05	12	3	291	6.17
07	05	861026	18.52	55	05	64	10	01	3	291
07	06	861026	18.52	38	61	63		3	291	6.17
07	07	861026	18.52	61	63	38		3	291	6.17
07	08	861026	18.52	63	38	61		3	291	6.17
07	09	861026	18.52	38	61	63		3	291	6.17
07	10	861026	18.52	61	63	38		3	291	0.31
08	01	861026	18.52	61	38	20		3	291	2.47
08	02	861026	18.52	64	05	55		3	291	6.17
08	03	861026	18.52	05	55	64		3	291	4.01
08	04	861026	18.52	05	55	64	11	03	3	291
08	05	861026	18.52	64	05	55	11	03	3	291
08	06	861026	18.52	55	64	05		3	291	3.70
08	07	861026	18.52	64	05	55		3	291	2.47
08	08	861026	18.52	05	55	64		3	291	6.17
08	09	861026	18.52	05	55	64		3	291	4.63
01	01	861027	18.52	55	64	05		3	291	0.31
01	02	861027	18.52	64	05	55	05	03	3	290
01	03	861027	18.52	05	55	64	06	03	3	290
02	01	861027	18.52	63	61	38	06	02	3	290
02	02	861027	18.52	55	64	05	06	02	3	290
02	03	861027	18.52	61	38	63	06	02	4	290
02	04	861027	18.52	38	63	61	06	02	4	290
02	05	861027	18.52	63	61	38	06	02	4	290
02	06	861027	18.52	61	38	63	06	02	4	290
02	07	861027	18.52	38	63	61	06	01	4	290
02	08	861027	18.52	38	63	61	06	01	4	290
02	09	861027	18.52	63	61	38	06	01	4	290
02	10	861027	18.52	64	55	05	06	01	5	290

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes			Sun Position Horz. Vert.	Beauf. No.	Course (Deg.)	Position Latitude Longitude		KM In Leg
				Left	Right	Rec.						
02	11	861027	18.52	55	05	64	55	06	01	5	290	6.17
02	12	861027	18.52	05	64	55	07	12	5	290		6.48
02	13	861027	18.52	64	55	05	07	12	5	290		6.17
02	14	861027	18.52	55	05	64	07	12	5	290		2.78
03	01	861027	18.52	05	64	55	08	12	5	290	07 34 N	144 43 W
04	01	861027	18.52	38	63	61	08	12	5	290	07 35 N	144 46 W
04	02	861027	18.52	38	63	61	12	12	4	290		6.17
04	03	861027	18.52	63	61	38	12	12	4	290		6.17
04	04	861027	18.52	61	38	63	12	12	4	290		6.17
04	05	861027	18.52	38	63	61	10	01	4	290		6.17
04	06	861027	18.52	63	61	38	10	01	4	290		6.17
04	07	861027	18.52	61	38	63	10	01	4	290		5.25
04	08	861027	18.52	64	05	55	10	01	4	290		6.17
04	09	861027	18.52	05	55	64	10	01	4	290		6.17
04	10	861027	18.52	55	64	05	11	01	4	290		6.17
04	11	861027	18.52	64	05	55	10	01	4	290		6.17
04	12	861027	18.52	05	55	64	10	01	4	290		6.17
04	13	861027	18.52	55	64	05	10	02	4	290		6.17
04	14	861027	18.52	63	61	38	11	02	4	290		6.17
04	15	861027	18.52	61	38	63	11	02	4	290		3.09
05	01	861027	18.52	05	64	55	12	02	4	261	07 57 N	145 29 W
05	02	861027	18.52	38	63	61	12	03	4	261		6.48
01	01	861028	18.52	63	61	38	05	03	3	321	08 24 N	145 57 W
01	02	861028	18.52	63	61	38	05	03	3	321		1.85
01	03	861028	18.52	61	38	63	05	03	3	321		6.17
01	04	861028	18.52	38	63	61	05	03	3	321		6.17
01	05	861028	18.52	63	61	38	05	03	3	321		2.78
01	06	861028	18.52	55	64	05	05	02	3	321		4.01
02	01	861028	18.52	61	38	63	05	02	3	321		5.56
02	02	861028	18.52	64	05	55	05	02	3	321		6.17
02	03	861028	18.52	05	55	64	05	02	3	321		6.79
02	04	861028	18.52	55	64	05	05	02	3	321		1.54
02	05	861028	18.52	64	05	55	05	01	3	321	08 51 N	146 11 W
03	01	861028	18.52	64	05	55	05	01	3	321		3.09
03	02	861028	18.52	05	55	64	05	01	3	321		1.54
04	01	861028	18.52	38	61	63	05	01	3	320	08 57 N	146 15 W
04	02	861028	18.52	61	63	38	06	01	3	320		6.17

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes	Sun Position	Beauf. No.	Position (Deg.)	KM In Leg
				Left	Horz.	Vert.	Latitude Longitude	
04	03	861028	18.52	63	38	61	06 01	320
04	04	861028	18.52	38	61	63	06 01	320
04	05	861028	18.52	61	63	38	12 12	320
04	06	861028	18.52	64	55	05	12 12	320
05	01	861028	18.52	55	05	64	09 12	320
05	02	861028	18.52	05	64	55	09 12	320
05	03	861028	18.52	64	55	05	09 12	320
05	04	861028	18.52	61	63	38	09 01	320
05	05	861028	18.52	63	38	61	09 01	320
05	06	861028	18.52	38	61	63	09 02	320
05	07	861028	18.52	61	63	38	09 01	320
05	08	861028	18.52	63	38	61	09 02	320
05	09	861028	18.52	63	38	61	09 02	320
05	10	861028	18.52	38	61	63	09 02	320
06	01	861028	18.52	38	64	05	10 02	320
06	02	861028	18.52	55	64	05	10 02	320
06	03	861028	18.52	63	61	38	10 02	320
06	04	861028	18.52	64	05	55	10 02	320
06	05	861028	18.52	05	55	64	10 03	320
01	01	861029	18.52	05	63	38	5 05	321
01	02	861029	18.52	05	63	61	05 05	321
01	03	861029	18.52	63	61	05	05 05	321
01	04	861029	18.52	61	05	63	05 05	321
01	05	861029	18.52	64	38	55	05 05	321
01	06	861029	18.52	61	05	63	05 05	321
01	07	861029	18.52	05	63	61	05 05	321
01	08	861029	18.52	63	61	05	05 05	321
01	09	861029	18.52	38	55	64	38 05	321
01	10	861029	18.52	55	64	38	55 05	321
01	11	861029	18.52	64	38	55	05 05	321
01	12	861029	18.52	38	55	64	38 05	321
01	13	861029	18.52	55	64	38	05 05	321
01	14	861029	18.52	64	38	55	05 05	321
01	15	861029	18.52	61	63	05	07 01	321
01	16	861029	18.52	63	38	61	07 01	321
01	17	861029	18.52	05	61	63	07 01	321
01	18	861029	18.52	61	63	05	07 12	321

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes			Sun Position	Beauf. No.	Course (Deg.)	Position Latitude	Position Longitude	KM In Leg	
				Left	Right	Rec.	Horz.	Vert.					
01	19	861029	18.52	63	05	61	12	12	5	321		2.47	
01	20	861029	18.52	64	55	38	12	12	5	321		5.56	
01	21	861029	18.52	63	05	61	12	12	5	321		3.70	
01	22	861029	18.52	05	61	63	12	12	5	321		0.93	
01	23	861029	18.52	55	38	64	12	12	5	321		6.17	
01	24	861029	18.52	38	64	55	12	12	5	321		6.17	
01	25	861029	18.52	64	55	38	12	12	5	321		6.17	
01	26	861029	18.52	55	38	64	12	12	5	321	10 41 N	147 43 W	
01	27	861029	18.52	38	64	55	09	12	5	321		6.17	
01	28	861029	18.52	64	55	38	09	12	5	321		5.86	
01	29	861029	18.52	63	05	61	09	12	5	321		6.17	
01	30	861029	18.52	61	05	63	09	01	5	321		2.16	
01	31	861029	18.52	61	05	63	09	01	5	321		4.63	
01	32	861029	18.52	61	05	63	09	01	5	346		0.62	
01	33	861029	18.52	05	63	61	09	01	5	346		1.54	
01	34	861029	18.52	05	63	61	09	01	4	346	10 55 N	147 56 W	
02	01	861029	18.52	63	61	05	05	01	4	320	11 13 N	148 01 W	
02	02	861029	18.52	63	61	05	05	01	4	345		2.16	
02	03	861029	18.52	63	61	05	05	01	4	320	11 17 N	148 02 W	
03	01	861029	18.52	64	55	38	04	04	4	320		3.70	
04	01	861029	18.52	64	55	38	04	04	4	320		0.00	
04	02	861029	18.52	64	55	38	04	04	4	320	11 20 N	148 03 W	
01	01	861030	18.52	64	55	38	04	04	4	320	12 25 N	148 58 W	
01	02	861030	18.52	55	38	64	05	03	5	320		1.85	
01	03	861030	18.52	55	38	64	05	02	5	320		4.32	
01	04	861030	18.52	38	64	55	05	02	5	320		3.40	
01	05	861030	18.52	63	61	05	05	02	5	320		7.41	
01	06	861030	18.52	55	64	38	05	02	5	320		6.17	
01	07	861030	18.52	64	38	55	05	02	4	320		6.48	
01	08	861030	18.52	38	55	64	05	03	4	320		1.23	
01	09	861030	18.52	05	61	63	05	02	4	320		4.63	
02	01	861030	18.52	05	61	63	05	05	02	4	320		1.85
02	02	861030	18.52	61	63	05	05	05	02	5	320		6.17
02	03	861030	18.52	63	05	61	05	05	02	5	320		6.17
02	04	861030	18.52	63	05	61	05	05	02	5	320		6.17
02	05	861030	18.52	05	61	63	05	05	02	5	320		6.17
02	06	861030	18.52	61	63	05	05	05	02	5	320		4.94

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes	Sun Position	Beauf. No.	Course (Deg.)	Position Latitude	Position Longitude	KM In Leg
				Left Right Rec.	Horz. Vert.					
02	07	861030	18.52	55	64	38	06	01	5	320
02	08	861030	18.52	64	38	55	06	01	5	320
02	09	861030	18.52	38	55	64	06	01	5	320
02	10	861030	18.52	55	64	38	12	12	5	320
02	11	861030	18.52	63	61	05	12	12	5	320
02	12	861030	18.52	63	61	05	12	12	5	320
03	01	861030	18.52	64	38	55	12	12	5	320
03	02	861030	18.52	05	61	63	12	12	5	320
03	03	861030	18.52	61	63	05	12	12	5	320
03	04	861030	18.52	63	05	61	09	01	5	320
03	05	861030	18.52	05	61	63	09	01	5	320
03	06	861030	18.52	05	61	63	09	01	5	320
03	07	861030	18.52	61	63	05	09	01	5	320
03	08	861030	18.52	61	63	05	09	01	5	320
03	09	861030	18.52	63	05	61	09	01	5	320
03	10	861030	18.52	38	55	64	09	01	5	320
03	11	861030	18.52	55	64	38	09	01	5	320
03	12	861030	18.52	64	38	55	09	01	5	320
03	13	861030	18.52	38	55	64	09	01	5	320
03	14	861030	18.52	55	64	38	09	01	5	320
04	01	861030	18.52	55	64	38	09	01	5	320
04	02	861030	18.52	63	61	05	63	05	5	320
04	03	861030	18.52	61	05	63	05	63	4	320
04	04	861030	18.52	64	38	55	05	61	4	320
04	05	861030	18.52	63	05	61	05	63	4	320
04	06	861030	18.52	05	61	05	63	05	5	320
04	07	861030	18.52	05	61	63	05	63	4	320
01	01	861031	18.52	55	64	38	05	03	5	320
01	02	861031	18.52	61	05	63	05	63	5	320
01	03	861031	18.52	05	63	61	05	63	4	320
01	04	861031	18.52	55	64	38	05	02	4	320
01	05	861031	18.52	05	63	61	05	63	4	320
01	06	861031	18.52	63	61	05	63	05	4	320
01	07	861031	18.52	61	05	63	05	63	4	320
01	08	861031	18.52	64	38	55	05	02	4	320
01	09	861031	18.52	38	55	64	05	02	4	320
01	10	861031	18.52	55	64	38	05	02	4	320

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes			Sun Position	Beauf. No.	Course (Deg.)	Position Latitude	Position Longitude	KM In Leg	
				Left	Right	Rec.	Horz.	Vert.					
01	11	861031	18.52	64	38	55	05	01	4	320	15 20 N	151 40 W	6.17
01	12	861031	18.52	38	55	64	05	01	4	320			6.17
01	13	861031	18.52	55	64	38	06	01	4	320	15 28 N	151 47 W	6.17
01	14	861031	18.52	63	61	05	06	01	4	320			6.17
01	15	861031	18.52	61	05	63	06	01	4	320			6.17
01	16	861031	18.52	05	63	61	06	01	4	320			6.17
01	17	861031	18.52	63	61	05	06	01	4	320	15 35 N	151 54 W	4.63
01	18	861031	18.52	55	64	38	06	01	4	320			5.86
01	19	861031	18.52	61	05	63	06	01	4	320			8.03
01	20	861031	18.52	64	38	55	07	01	5	320			6.17
01	21	861031	18.52	38	55	64	07	01	5	320			6.17
01	22	861031	18.52	55	64	38	07	01	5	320			6.17
01	23	861031	18.52	64	38	55	09	12	5	320			6.17
01	24	861031	18.52	38	55	64	09	12	5	320			6.17
01	25	861031	18.52	55	64	38	09	01	5	320			6.17
01	26	861031	18.52	63	61	05	09	01	5	320	15 59 N	152 16 W	6.17
01	27	861031	18.52	61	05	63	09	01	5	320			6.17
01	28	861031	18.52	05	63	61	09	01	5	320			2.16
01	29	861031	18.52	05	63	61	09	02	5	320			2.16
01	30	861031	18.52	05	63	61	09	02	5	320			1.85
01	31	861031	18.52	63	61	05	09	02	5	320			5.56
01	32	861031	18.52	63	61	05	09	02	5	320			0.62
01	33	861031	18.52	61	05	63	09	02	6	320			4.63
01	34	861031	18.52	61	05	63	09	02	6	320			1.54
01	35	861031	18.52	05	63	61	09	02	6	320			3.70
01	36	861031	14.82	05	63	61	07	02	6	050			0.74
01	01	861101	18.52	64	63	38	05	03	5	318	17 19 N	153 21 W	6.17
01	02	861101	18.52	63	38	64	05	03	5	318			4.01
01	03	861101	18.52	55	61	05	05	03	5	318			4.94
01	04	861101	18.52	55	61	05	05	03	6	323			2.16
01	05	861101	18.52	38	64	63	05	03	6	323			6.17
01	06	861101	18.52	64	63	38	05	02	6	323			6.17
01	07	861101	18.52	63	38	64	05	02	6	323			7.10
01	08	861101	18.52	38	64	63	05	02	6	323			1.23
01	09	861101	18.52	05	61	55	05	02	6	323			6.17
01	10	861101	18.52	61	55	05	05	02	6	323			6.17
01	11	861101	18.52	55	05	61	05	02	6	323			6.17

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes			Sun Position Horz. Vert.	Beauf. No.	Course (Deg.)	Position		KM In Leg	
				Left	Right	Rec.				Latitude	Longitude		
01	12	861101	18.52	05	61	55	05	01	6	323	6.17		
01	13	861101	18.52	61	55	05	05	01	6	323	6.48		
01	14	861101	18.52	55	05	61	05	01	6	323	3.70		
01	15	861101	18.52	55	05	61	06	01	6	326	1.23		
01	16	861101	18.52	63	38	64	06	01	6	326	6.17		
01	17	861101	18.52	38	64	63	06	01	6	326	6.17		
01	18	861101	18.52	64	63	38	06	01	6	326	2.78		
01	19	861101	18.52	64	63	38	06	01	6	326	1.54		
02	01	861101	18.52	63	38	64	12	12	5	326	6.17		
02	02	861101	18.52	38	64	63	12	12	5	326	2.47		
02	03	861101	18.52	55	61	05	12	12	5	326	6.79		
02	04	861101	18.52	61	05	55	08	12	5	326	6.17		
02	05	861101	18.52	05	55	61	08	12	5	326	6.17		
02	06	861101	18.52	55	61	05	08	12	5	326	6.17		
02	07	861101	18.52	61	05	55	08	12	5	326	2.78		
01	01	861113	18.52	38	61	55	10	03	3	117	10 59 N		
01	02	861113	18.52	38	61	55	10	03	3	147	139 36 W	2.47	
01	03	861113	18.52	38	61	55	10	03	3	147	2.78		
01	04	861113	18.52	61	55	38	10	03	3	147	1.54		
01	05	861113	18.52	05	64	63	10	03	3	147	3.70		
01	06	861113	18.52	05	64	63	08	12	5	326	2.16		
01	07	861113	18.52	61	55	38	10	03	3	147	3.09		
02	01	861113	18.52	61	55	38	61	11	02	3	147	1.23	
02	02	861113	18.52	55	38	61	11	02	3	147	3.70		
02	03	861113	18.52	61	55	38	61	11	02	3	147	1.85	
02	04	861113	18.52	38	61	55	11	02	3	147	4.32		
02	05	861113	18.52	61	55	38	11	02	3	147	6.17		
02	06	861113	18.52	64	63	05	11	02	3	147	2.78		
03	01	861113	18.52	63	05	64	11	02	3	147	5.86		
03	02	861113	18.52	05	64	63	11	02	3	147	6.17		
03	03	861113	18.52	64	63	05	11	01	3	147	4.32		
04	01	861113	18.52	63	05	64	11	01	3	147	6.48		
04	02	861113	18.52	61	38	55	11	01	3	147	6.17		
05	01	861113	18.52	38	55	61	11	01	3	147	2.78		
06	01	861113	18.52	38	55	61	12	12	2	147	1.54		
06	02	861113	18.52	63	05	12	12	12	2	147	5.25		
06	03	861113	18.52	55	61	38	12	12	2	147	6.17		

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes	Sun Position	Beauf. No.	Course (Deg.)	Position Latitude Longitude	KM In Leg
				Left	Horz.	Vert.			
06	04	861113	18.52	61	38	55	12	12	2
06	05	861113	18.52	63	05	64	12	12	3
06	06	861113	18.52	05	64	63	02	01	3
06	07	861113	18.52	64	63	05	02	01	3
07	01	861113	18.52	63	05	64	04	01	3
07	02	861113	18.52	63	05	64	02	01	3
07	03	861113	18.52	05	64	63	02	01	3
07	04	861113	18.52	05	64	63	02	01	3
08	01	861113	18.52	38	55	55	61	38	4
08	02	861113	18.52	55	61	38	55	61	4
08	03	861113	18.52	61	38	55	61	38	4
08	04	861113	18.52	38	55	55	61	38	4
08	05	861113	18.52	38	55	55	61	38	4
08	06	861113	18.52	38	55	55	61	38	4
09	01	861113	18.52	63	64	05	03	02	2
09	02	861113	18.52	64	05	63	03	02	4
01	01	861114	18.52	55	05	38	64	01	2
01	02	861114	18.52	61	38	64	61	01	2
01	03	861114	18.52	38	64	61	01	02	2
01	04	861114	18.52	64	61	38	64	01	2
01	05	861114	18.52	61	38	64	61	01	2
01	06	861114	18.52	38	64	61	01	02	2
01	07	861114	18.52	38	64	61	01	01	2
01	08	861114	18.52	64	61	38	01	01	3
01	09	861114	18.52	55	63	05	01	01	3
01	10	861114	18.52	63	05	55	01	01	3
01	11	861114	18.52	05	55	63	01	01	3
01	12	861114	18.52	05	55	63	05	01	3
01	13	861114	18.52	55	63	05	05	01	3
01	14	861114	18.52	64	61	38	61	38	3
01	15	861114	18.52	55	63	05	55	03	12
01	16	861114	18.52	63	05	55	05	03	100
01	17	861114	18.52	63	05	55	05	03	100
01	18	861114	18.52	38	61	64	38	61	4
01	19	861114	18.52	61	64	38	61	64	4
01	20	861114	18.52	61	64	38	61	64	4
01	21	861114	18.52	61	64	38	61	64	4

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes			Sun Position Horz.	Position Vert.	Beauf. No.	Course (Deg.)	Latitude Longitude	KM In Leg	
				Left	Right	Rec.							
02	01	861114	18.52	61	64	38			4	042	09 40 N	135 09 W	4.94
01	01	861115	18.52	64	38	61			4	042	11 17 N	133 39 W	6.17
01	02	861115	18.52	38	61	64			5	042			4.94
01	03	861115	18.52	05	63	55			5	042			6.79
01	04	861115	18.52	61	64	38			5	042			6.17
01	05	861115	18.52	64	38	61			5	042			6.17
01	06	861115	18.52	38	61	64			5	042			6.79
01	07	861115	18.52	55	63	05			5	042			6.17
01	08	861115	18.52	63	05	55			5	042			6.17
01	09	861115	18.52	05	55	63			5	042			6.17
01	10	861115	18.52	55	63	05			5	042			6.17
01	11	861115	18.52	63	05	55			5	042			4.63
01	12	861115	18.52	63	05	55			4	042			1.54
01	13	861115	18.52	05	55	63			4	042			1.23
02	01	861115	18.52	05	55	63			4	042			3.09
02	02	861115	18.52	64	61	38			4	042			6.17
02	03	861115	18.52	61	38	64			4	042			5.25
03	01	861115	18.52	63	55	05			4	042			5.56
03	02	861115	18.52	38	64	61			4	042			6.17
03	03	861115	18.52	64	61	38			3	042			4.63
03	04	861115	18.52	55	05	63			3	042			6.79
04	01	861115	18.52	05	63	55			3	042			6.17
04	02	861115	18.52	63	55	05			2	042			5.48
04	03	861115	18.52	05	63	55			3	042			3.40
04	04	861115	18.52	05	63	55			1	042			6.17
04	05	861115	18.52	38	64	61			1	042			6.17
04	06	861115	18.52	64	61	38			1	042	12 22 N	132 40 W	6.17
04	07	861115	18.52	61	38	64			2	042			6.17
04	08	861115	18.52	38	64	61			2	042			5.56
05	01	861115	18.52	05	63	55			2	042	12 30 N	132 23 W	6.17
05	02	861115	18.52	63	55	05			2	042	13 37 N	131 29 W	3.40
01	01	861116	18.52	05	63	55			3	042			6.48
01	02	861116	18.52	63	55	05			3	042			6.17
01	03	861116	18.52	55	05	63			3	042			3.09
01	04	861116	18.52	38	61	64			3	042			6.17
01	05	861116	18.52	55	05	63			3	042			3.09
01	06	861116	18.52	05	63	55			3	042			6.48

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes			Sun Position		Beauf. No.	Course (Deg.)	Position		KM In Leg
				Left	Right	Rec.	Horz.	Vert.			Latitude	Longitude	
02	01	861116	18.52	63	55	05	3	042	13 51 N	131 16 W		1.23	
02	02	861116	18.52	61	64	38	2	042	13 59 N	131 09 W		4.32	
03	01	861116	18.52	61	64	38	2	042	14 20 N	130 49 W		4.94	
04	01	861116	18.52	64	38	61	2	037				6.17	
04	02	861116	18.52	38	61	64	3	037				6.17	
04	03	861116	18.52	61	64	38	3	037				6.17	
04	04	861116	18.52	64	38	61	3	037				6.17	
04	05	861116	18.52	38	61	64	3	037				6.17	
04	06	861116	18.52	61	64	38	3	037				2.16	
04	07	861116	18.52	55	63	05	3	037				6.17	
04	08	861116	18.52	63	05	55	3	037				6.17	
04	09	861116	18.52	05	55	63	3	037				3.70	
04	10	861116	18.52	05	55	63	3	037				2.47	
04	11	861116	18.52	55	63	05	3	037				6.17	
04	12	861116	18.52	63	05	55	3	037				1.85	
05	01	861116	18.52	63	05	55	3	037				1.54	
05	02	861116	18.52	64	61	38	3	037				9.26	
05	03	861116	18.52	61	38	64	3	037				6.79	
05	04	861116	18.52	63	55	05	3	037				4.63	
05	05	861116	18.52	64	61	38	3	037				1.23	
05	06	861116	18.52	64	61	38	3	037				5.25	
01	01	861117	18.52	38	61	63	3	037				0.93	
01	02	861117	18.52	38	61	63	12	03				6.17	
01	03	861117	18.52	61	63	38	12	03				1.85	
01	04	861117	18.52	63	38	61	12	03				2.16	
01	05	861117	18.52	63	38	61	12	03				2.16	
01	06	861117	18.52	63	38	61	12	03				5.56	
01	07	861117	18.52	38	61	63	12	02				6.17	
02	02	861117	18.52	61	63	38	3	037				5.86	
02	03	861117	18.52	64	05	55	3	037				6.17	
02	04	861117	18.52	05	55	64	05	055				5.25	
02	05	861117	18.52	55	64	05	05	055				1.54	
02	06	861117	18.52	64	05	55	05	055				6.17	
02	07	861117	18.52	05	55	64	11	01				3.116	
02	08	861117	18.52	05	55	64	11	01				116	

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Left	Observer Right	Codes Rec.	Sun Position Horz.	Sun Position Vert.	Beauf. No.	Course (Deg.)	Latitude Longitude	Position KM In Leg	
02	09	861117	18.52	55	64	05	11	01	3	116		5.86	
02	10	861117	18.52	63	38	61			3	116		6.79	
02	11	861117	18.52	38	61	63	01	01	3	116		5.56	
03	01	861117	18.52	61	63	38	02	01	3	116	13 29 N	128 19 W	
03	02	861117	18.52	63	38	61	02	01	3	116		6.17	
03	03	861117	18.52	38	61	63	02	01	3	116		3.70	
03	04	861117	18.52	05	64	55	03	12	3	116		6.17	
03	05	861117	18.52	64	55	05	03	12	3	116		6.17	
03	06	861117	18.52	55	05	64			3	116		6.17	
03	07	861117	18.52	05	64	55	05		3	116		6.17	
03	08	861117	18.52	64	55	05			3	116		6.17	
03	09	861117	18.52	55	05	64			3	116		7.41	
03	10	861117	18.52	63	61	38	63		3	116		6.17	
03	11	861117	18.52	61	38	63	61		3	116		6.17	
03	12	861117	18.52	38	63	61			3	116		0.93	
03	13	861117	18.52	38	63	61	38		3	116		5.25	
03	14	861117	18.52	63	61	38	63		3	116		6.17	
03	15	861117	18.52	61	38	63			3	116		2.47	
04	01	861117	18.52	55	64	05			4	116	13 06 N	127 36 W	
05	01	861117	18.52	61	63	38			3	116	13 03 N	127 35 W	
05	02	861117	18.52	61	63	38			3	116	13 02 N	127 33 W	
01	01	861118	18.52	55	64	05		12	03	4	116	12 26 N	126 16 W
01	02	861118	18.52	61	63	38			5	116		6.17	
01	03	861118	18.52	64	05	55	12	03	5	116		1.54	
01	04	861118	18.52	64	05	55	12	03	5	116		4.63	
01	05	861118	18.52	05	55	64	12	03	5	116		6.17	
01	06	861118	18.52	55	64	05	12	02	5	116		6.17	
01	07	861118	18.52	64	05	55	12	02	5	116		6.17	
01	08	861118	18.52	05	55	64	12	02	5	116		3.09	
01	09	861118	18.52	63	38	61	12		5	116		1.54	
01	10	861118	18.52	63	38	61	12	02	5	116		2.78	
02	01	861118	18.52	38	61	63	38	12	01	6	116		6.17
02	02	861118	18.52	61	63	38	61	12	01	6	116		6.17
02	03	861118	18.52	63	38	61	12	01	6	116		4.63	
02	04	861118	18.52	38	61	63	12	01	6	116		0.31	
02	05	861118	18.52	38	61	63	12	01	6	116	12 10 N	125 44 W	
01	01	861121	17.04	55	64	38			6	113	08 02 N	116 52 W	5.68

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Left	Observer Right	Codes Rec.	Sun Position Horz. Vert.	Beauf. No.	Course (Deg.)	Latitude Longitude	Position KM In Leg
02	09	861117	18.52	55	64	05	11	01	3	116	5.86
02	10	861117	18.52	63	38	61	63	01	3	116	6.79
02	11	861117	18.52	38	61	63	38	02	01	3	5.56
03	01	861117	18.52	61	63	38	61	02	01	3	6.79
03	02	861117	18.52	63	38	61	63	02	01	3	6.17
03	03	861117	18.52	38	61	63	61	02	01	3	3.70
03	04	861117	18.52	05	64	55	03	12	3	116	6.17
03	05	861117	18.52	64	55	05	03	12	3	116	6.17
03	06	861117	18.52	55	05	64	55	05	3	116	6.17
03	07	861117	18.52	05	64	55	05	64	3	116	6.17
03	08	861117	18.52	64	55	05	64	55	3	116	6.17
03	09	861117	18.52	55	05	64	55	05	3	116	7.41
03	10	861117	18.52	63	61	38	63	61	3	116	6.17
03	11	861117	18.52	61	38	63	61	38	3	116	6.17
03	12	861117	18.52	38	63	61	38	63	3	116	0.93
03	13	861117	18.52	38	63	61	38	63	3	116	5.25
03	14	861117	18.52	63	61	38	63	61	3	116	6.17
03	15	861117	18.52	61	38	63	61	38	3	116	2.47
04	01	861117	18.52	55	64	05	05	05	4	116	4.94
05	01	861117	18.52	61	63	38	63	38	3	116	5.86
05	02	861117	18.52	61	63	38	61	38	3	116	0.31
01	01	861118	18.52	55	64	05	05	12	03	116	3.09
01	02	861118	18.52	61	63	38	61	38	4	116	6.17
01	03	861118	18.52	64	05	55	12	03	5	116	1.54
01	04	861118	18.52	64	05	55	12	03	5	116	4.63
01	05	861118	18.52	05	55	64	12	03	5	116	6.17
01	06	861118	18.52	55	64	05	55	12	02	5	6.17
01	07	861118	18.52	64	05	55	12	12	02	5	6.17
01	08	861118	18.52	05	55	64	12	02	5	116	3.09
01	09	861118	18.52	63	38	61	12	02	5	116	2.78
02	01	861118	18.52	61	38	63	12	02	5	116	6.17
02	02	861118	18.52	61	38	61	12	01	6	116	6.17
02	03	861118	18.52	63	38	61	12	01	6	116	4.63
02	04	861118	18.52	38	61	63	12	01	6	116	0.31
02	05	861118	18.52	38	61	64	12	01	6	116	5.68
01	01	861121	17.04	55	64	38	12	10	125 44 W	116 52 W	

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes	Sun Position	Beauf. No.	Course (Deg.)	Position Latitude	Position Longitude	KM In Leg
				Left Right Rec.	Horz. Vert.					
01	02	861121	17.04	64	38	55	6	113	5.40	
01	03	861121	17.04	63	61	05	6	113	4.83	
01	04	861121	17.04	63	61	05	6	113	0.57	
01	05	861121	17.04	38	55	64	6	113	4.54	
02	01	861121	17.04	55	64	38	6	113	6.45	
02	02	861121	17.04	05	61	63	6	113	5.68	
02	03	861121	17.59	61	63	05	6	113	5.86	
02	04	861121	17.59	63	05	61	6	113	6.45	
02	05	861121	17.59	05	61	63	6	113	3.81	
02	06	861121	17.59	05	61	63	6	113	1.47	
02	07	861121	17.59	05	61	63	6	113	0.59	
02	08	861121	17.59	61	63	05	6	113	1.17	
03	01	861121	17.59	64	38	55	01	01	5.86	
03	02	861121	17.59	38	55	64	01	01	7.04	
03	03	861121	17.59	55	64	38	01	01	1.17	
04	01	861121	17.59	61	63	05	01	12	5.57	
04	02	861121	17.59	64	38	55	02	12	4.98	
04	03	861121	17.59	61	63	05	02	12	4.11	
04	04	861121	17.59	61	63	05	02	12	1.76	
04	05	861121	17.59	05	63	61	03	12	1.76	
04	06	861121	17.59	05	63	61	03	12	1.76	
04	07	861121	17.59	05	63	61	03	12	1.76	
04	08	861121	17.59	05	63	61	03	12	1.17	
04	09	861121	17.59	63	61	05	03	12	6.16	
04	10	861121	17.59	61	05	63	03	01	5.86	
04	11	861121	17.59	05	63	61	03	01	2.93	
04	12	861121	17.59	63	61	05	03	01	5.86	
04	13	861121	17.59	55	38	64	04	01	2.93	
04	14	861121	17.59	38	64	55	04	01	1.17	
04	15	861121	17.59	64	55	38	04	02	5.86	
05	01	861121	17.59	64	55	38	04	02	2.93	
05	02	861121	17.59	55	38	64	04	02	5.86	
05	03	861121	17.59	38	64	55	04	02	2.93	
05	04	861121	17.59	64	55	38	04	02	5.86	
05	05	861121	17.59	63	61	05	04	02	2.93	
05	06	861121	17.59	61	05	63	04	02	3	
05	07	861121	17.59	55	38	64	04	02	3	

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes	Sun Position Horz.	Beauf. No.	Course (Deg.)	Latitude Longitude	KM In Leg
06	01	861121	17.59	63 05	61	3	113 07 26 N	115 22 W	3.52
01	01	861122	0.00	63 61	05	6	117 06 56 N	113 46 W	0.00
01	02	861122	0.00	55 64	38	6	117 05 28 N	111 00 W	0.00
01	01	861123	17.78	63 64	38	5	117 05 01 N	110 00 W	5.93
01	02	861123	17.78	64 38	63	5	117 04 59 N	109 55 W	5.93
01	03	861123	17.78	38 63	64	5	117 04 54 N	109 50 W	5.93
01	04	861123	17.78	63 64	38	5	117 04 49 N	109 45 W	5.93
01	05	861123	17.78	64 38	63	5	117 04 44 N	109 40 W	1.48
01	06	861123	17.78	05 61	55	5	117 04 39 N	109 35 W	5.93
01	07	861123	17.78	64 38	63	5	117 04 34 N	109 30 W	4.74
01	08	861123	17.78	61 55	05	5	117 04 29 N	109 25 W	5.93
01	09	861123	17.78	55 05	61	5	117 04 24 N	109 20 W	5.93
01	10	861123	17.78	05 61	55	5	117 04 19 N	109 15 W	6.22
01	11	861123	17.78	61 55	05	5	117 04 14 N	109 10 W	5.93
01	12	861123	17.78	55 05	61	12	01 12 01 N	109 05 W	0.89
01	13	861123	17.78	05 61	55	12	01 12 01 N	109 00 W	5.04
01	14	861123	17.78	05 61	55	12	01 12 01 N	108 55 W	5.93
01	15	861123	17.78	38 63	64	12	01 12 01 N	108 50 W	4.74
01	16	861123	17.78	63 64	38	12	12 01 12 N	108 45 W	1.19
01	17	861123	17.78	63 64	38	63	12 01 12 N	108 40 W	5.33
01	18	861123	17.78	64 38	63	12	12 01 12 N	108 35 W	0.59
01	19	861123	17.78	64 38	63	12	12 01 12 N	108 30 W	5.93
01	20	861123	17.78	38 63	64	12	12 01 12 N	108 25 W	6.48
01	21	861123	17.78	63 64	38	63	12 01 12 N	108 20 W	6.30
01	22	861123	17.78	64 38	63	12	12 01 12 N	108 15 W	6.48
01	23	861123	17.78	64 38	63	04	02 02 02 N	108 10 W	6.30
02	01	861123	19.45	63 64	38	04	02 02 02 N	108 05 W	0.30
02	02	861123	19.45	63 64	38	04	02 02 02 N	108 00 W	6.48
02	03	861123	19.45	64 38	63	04	02 02 02 N	107 55 W	4.54
02	04	861123	19.45	55 61	05	04	02 02 02 N	107 50 W	6.30
01	01	861124	18.89	05 61	55	04	02 02 02 N	107 45 W	0.37
01	02	861124	18.89	61 55	05	04	02 02 02 N	107 40 W	6.30
01	03	861124	18.89	55 61	05	04	02 02 02 N	107 35 W	0.37
01	04	861124	18.89	05 61	55	05	04 00 00 N	107 30 W	6.30
01	05	861124	18.89	61 55	05	05	04 00 00 N	107 25 W	0.37

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes		Sun Position		Beauf. No.	Course (Deg.)	Position		KM In Leg
				Left	Right	Horz.	Vert.			Latitude	Longitude	
01	06	861124	18.89	55	05	61	38	5	037	6.30		
01	07	861124	18.89	63	64	38	63	5	037	6.30		
01	08	861124	18.89	64	38	63	03	5	037	3.46		
01	09	861124	18.89	64	38	63	03	5	037	3.15		
01	10	861124	18.89	38	63	64	03	5	037	6.30		
01	11	861124	18.89	63	64	38	03	5	037	6.30		
01	12	861124	18.89	64	38	63	03	5	037	04 23 N	108 06 W	3.15
01	13	861124	18.89	64	38	63	01	5	037	3.15		
01	14	861124	18.89	38	63	64	03	5	037	5.98		
01	15	861124	18.89	55	61	05	03	01	5	037	6.93	
01	16	861124	18.89	61	05	55	03	01	5	037	6.93	
01	17	861124	18.89	05	55	61	03	01	5	037	6.30	
01	18	861124	18.89	55	61	05	03	01	5	037	6.30	
01	19	861124	18.89	61	05	55	04	12	5	037	6.93	
01	20	861124	18.89	05	55	61	04	12	5	037	3.46	
01	21	861124	18.89	05	55	61	12	12	5	304	0.94	
01	22	861124	18.89	64	38	63	12	12	5	304	6.30	
01	23	861124	18.89	38	63	64	12	12	5	304	0.94	
01	24	861124	18.89	55	61	05	12	12	5	304	5.98	
01	25	861124	18.89	63	64	38	12	12	5	304	6.30	
01	26	861124	18.89	64	38	63	09	01	5	304	2.52	
01	27	861124	18.89	64	38	63	09	01	5	304	3.78	
01	28	861124	18.89	38	63	64	09	01	5	304	6.30	
01	29	861124	18.89	63	64	38	09	01	5	304	5.98	
01	30	861124	18.89	05	61	55	09	01	5	304	6.93	
02	01	861124	18.52	61	55	05	10	01	5	304	6.17	
02	02	861124	18.52	55	05	61	10	02	5	304	6.17	
02	03	861124	18.52	05	61	55	10	02	5	304	4.94	
03	01	861124	18.71	38	63	64	10	03	5	301	6.24	
03	02	861124	18.71	55	61	05	10	03	5	301	4.99	
03	03	861124	18.71	63	64	38	10	03	5	301	6.17	
03	04	861124	18.71	63	64	38	10	03	5	299	6.17	
01	01	861125	18.52	64	63	38	64	06	03	5	299	0.31
01	02	861125	18.52	63	38	64	63	06	02	5	299	
01	03	861125	18.52	38	64	63	38	06	02	5	299	
01	04	861125	18.52	64	63	38	64	06	02	5	299	
01	05	861125	18.52	63	38	64	63	06	02	5	299	

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes		Sun Position	Beauf. No.	Course (Deg.)	Position Latitude Longitude	KM In Leg
				Left	Right	Horz. Vert.				
02	01	861125	18.52	63	38	64	06	02	5 299 05 47 N 109 10 W	2.16
02	02	861125	18.52	38	64	63	06	02	5 299 05 47 N 109 10 W	1.85
02	03	861125	18.52	55	61	05	06	02	5 299 05 47 N 109 10 W	6.17
02	04	861125	18.52	61	05	55	06	02	5 299 05 47 N 109 10 W	6.17
02	05	861125	18.52	05	55	61	06	02	6 299 05 47 N 109 10 W	6.17
02	06	861125	18.52	55	61	05	06	02	6 299 05 47 N 109 10 W	6.48
02	07	861125	18.52	61	05	55	06	01	6 299 05 47 N 109 10 W	1.23
03	01	861125	18.52	05	55	61	06	01	6 298 05 47 N 110 24 W	4.32
03	02	861125	18.52	63	64	38	06	01	5 298 05 47 N 110 24 W	6.17
03	03	861125	18.52	64	38	63	06	01	5 298 05 47 N 110 24 W	6.17
03	04	861125	18.52	38	63	64	07	01	5 298 05 47 N 110 24 W	6.17
03	05	861125	18.52	63	64	38	07	01	5 298 05 47 N 110 24 W	6.17
03	06	861125	18.52	64	38	63	07	01	5 298 05 47 N 110 24 W	6.17
03	07	861125	18.52	38	63	64	07	01	5 298 05 47 N 110 24 W	6.17
03	08	861125	18.52	55	61	05	08	12	5 298 05 47 N 110 24 W	6.17
03	09	861125	18.52	61	05	55	08	12	5 298 05 47 N 110 24 W	1.54
03	10	861125	18.52	63	64	38	12	12	5 298 05 47 N 110 24 W	7.10
03	11	861125	18.52	55	05	61	12	12	5 298 05 47 N 110 24 W	6.17
03	12	861125	18.52	05	61	55	09	12	5 298 05 47 N 110 24 W	6.17
03	13	861125	18.52	61	55	05	09	12	5 298 05 47 N 110 24 W	6.17
03	14	861125	18.52	55	05	61	09	12	5 298 05 47 N 110 24 W	3.70
03	15	861125	18.52	64	38	63	09	01	5 298 05 47 N 110 24 W	6.17
03	16	861125	18.52	38	63	64	10	01	5 298 05 47 N 110 24 W	6.17
03	17	861125	18.52	63	64	38	10	01	5 298 05 47 N 110 24 W	6.17
03	18	861125	18.52	64	38	63	10	01	5 298 05 47 N 110 24 W	6.17
03	19	861125	18.52	38	63	64	10	02	5 298 05 47 N 110 24 W	6.17
03	20	861125	18.52	63	64	38	10	02	5 298 05 47 N 110 24 W	6.17
03	21	861125	18.52	55	61	05	10	02	5 298 05 47 N 110 24 W	6.17
03	22	861125	18.52	61	05	55	10	02	5 298 05 47 N 110 24 W	6.17
03	23	861125	18.52	05	55	61	05	10	03 03 5 298 05 47 N 110 24 W	4.32
03	24	861125	18.52	05	55	61	05	10	03 03 5 298 05 47 N 110 24 W	1.85
03	25	861125	18.52	55	61	05	10	03	5 298 05 47 N 110 24 W	3.09
03	26	861125	18.52	38	64	63	05	10	03 03 5 298 05 47 N 110 24 W	3.40
03	27	861125	18.52	38	64	63	10	03	5 298 05 47 N 110 24 W	2.16
03	28	861125	18.52	55	61	05	10	03	5 298 05 47 N 110 24 W	4.01
03	29	861125	18.52	61	05	55	10	03	5 298 05 47 N 110 24 W	4.32
03	30	861125	18.52	61	05	55	10	03	5 298 05 47 N 110 24 W	0.31

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes			Sun Position		Beauf. No.	Course (Deg.)	Position		KM In Leg		
				Left	Right	Rec.	Horz.	Vert.			Latitude	Longitude			
01	01	861126	18.33	61	64	05	05	03	4	313	06 58 N	111 10 W	6.11		
01	02	861126	18.33	64	05	61	61	4	4	313			6.11		
01	03	861126	18.33	05	61	64	64	4	4	313			6.11		
01	04	861126	18.33	61	64	05	61	05	4	313			6.11		
01	05	861126	18.33	63	38	55	63	4	4	313			5.81		
01	06	861126	18.33	64	05	61	61	05	4	313			2.14		
01	07	861126	18.33	64	05	61	55	05	02	4	313		4.28		
01	08	861126	18.33	38	55	63	63	05	02	4	313		6.11		
01	09	861126	18.33	55	63	38	55	05	02	4	313		6.11		
01	10	861126	18.33	63	38	55	63	06	02	4	313		2.14		
01	11	861126	18.33	38	55	63	63	06	02	4	313	07 16 N	111 30 W	3.97	
01	12	861126	18.33	38	55	63	63	06	02	4	313			6.11	
01	13	861126	18.33	55	63	38	55	05	02	4	313			6.11	
01	14	861126	18.33	63	38	55	63	05	02	4	313			6.11	
01	15	861126	18.33	61	64	05	61	05	02	4	313			6.11	
01	16	861126	18.33	64	05	61	64	05	02	4	313			5.56	
01	17	861126	18.33	05	61	64	64	05	02	4	313			6.11	
01	18	861126	16.67	61	64	05	61	05	02	4	313			5.56	
01	19	861126	16.67	64	05	61	64	05	02	4	313			5.56	
01	20	861126	16.67	05	63	64	64	05	02	4	313			5.56	
01	21	861126	16.67	61	64	05	64	05	02	4	313			1.39	
01	22	861126	16.67	55	63	38	55	05	02	4	313			5.56	
01	23	861126	16.67	63	38	55	63	05	02	4	313			5.56	
01	24	861126	16.67	55	63	38	55	05	02	4	313	07 43 N	111 55 W	5.56	
02	01	861126	16.67	63	38	55	63	05	02	4	313			5.56	
02	02	861126	16.67	63	38	55	63	05	02	4	313			0.56	
02	03	861126	16.67	38	55	63	63	05	02	4	313			1.39	
02	04	861126	16.67	64	61	05	64	05	02	4	313			4.69	
03	01	861126	17.59	64	61	05	64	05	10	02	4	313	07 48 N	112 00 W	5.86
03	02	861126	17.59	05	64	05	64	05	10	02	4	313	08 04 N	112 15 W	6.16
03	03	861126	17.59	63	38	55	63	05	02	4	313			8.80	
03	04	861126	17.59	38	55	63	63	05	02	4	313			5.86	
03	05	861126	17.59	38	55	63	63	05	02	4	313			3.52	
03	06	861126	17.59	64	61	05	64	05	02	4	313			6.30	
03	07	861126	17.59	55	63	38	55	05	02	4	313			3.52	
03	08	861126	17.59	63	38	55	63	05	02	4	313	08 55 N	113 19 W	6.30	
01	01	861127	18.89	63	38	55	63	05	02	4	313			4.98	

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes	Sun Position Horz. Vert.	Beauf. No.	Course (Deg.)	Latitude Longitude	Position KM In Leg
				Left Right Rec.					
01	02	861127	18.89	38	55	63	3	313	6.30
01	03	861127	18.89	55	63	38	3	313	4.41
01	04	861127	18.89	55	63	38	3	313	0.63
02	01	861127	18.89	61	64	05	3	314	6.30
02	02	861127	18.89	64	05	61	3	314	6.30
02	03	861127	18.89	05	61	64	3	314	6.30
02	04	861127	18.89	61	64	05	3	314	6.30
02	05	861127	18.89	64	05	61	4	314	6.30
02	06	861127	18.89	05	61	64	01	4	314
03	01	861127	18.89	38	63	55	07	01	5.98
03	02	861127	18.89	63	55	38	4	314	6.30
03	03	861127	18.89	55	38	63	4	314	3.15
04	01	861127	17.59	64	61	05	4	313	5.86
04	02	861127	17.59	61	05	64	4	313	4.69
04	03	861127	17.59	05	64	61	4	313	2.93
05	01	861127	17.59	55	63	38	1	313	2.35
06	01	861127	17.59	05	64	61	1	313	3.52
06	02	861127	17.59	05	64	61	1	313	5.86
06	03	861127	17.59	64	61	05	2	313	3.81
06	04	861127	17.59	61	05	64	2	313	0.29
06	05	861127	17.59	61	05	64	2	313	6.17
01	01	861128	18.52	64	61	05	2	311	1.23
01	02	861128	18.52	61	05	64	2	311	3.70
01	03	861128	18.52	61	05	64	2	311	0.31
01	04	861128	18.52	61	05	64	2	311	6.11
02	01	861128	18.33	55	63	38	3	311	3.67
02	02	861128	18.33	63	38	55	3	311	6.17
02	03	861128	18.33	55	63	38	3	312	5.25
02	04	861128	18.33	55	63	38	3	312	0.93
03	01	861128	18.52	61	64	05	61	3	312
03	02	861128	18.52	64	05	61	3	312	2.16
03	03	861128	18.52	18.52	05	61	63	3	312
03	04	861128	18.52	18.52	63	38	55	3	312
03	05	861128	18.52	18.52	38	55	63	3	312
03	06	861128	18.52	18.52	55	63	38	3	312
03	07	861128	18.52	18.52	55	63	38	3	312
03	08	861128	18.52	18.52	63	38	55	3	312

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes	Sun Position Horz. Vert.	Beauf. No.	Course (Deg.)	Position Latitude Longitude	KM In Leg
			Left Right	Rec.					
03	09	861128	18.52	38	55	63	38	3 312	6.17
03	10	861128	18.52	55	63	09	01	4 312	6.17
03	11	861128	18.52	05	64	61	09	4 312	6.17
03	12	861128	18.52	64	61	05	01	4 312	6.17
03	13	861128	18.52	61	05	64	09	4 312	6.17
03	14	861128	18.52	05	64	61	09	4 312	6.17
03	15	861128	18.52	64	61	05	09	4 312	6.17
03	16	861128	18.52	61	05	64	09	4 312	4.32
03	17	861128	18.52	61	05	64	09	4 312	6.17
04	01	861128	18.52	55	38	63	09	02 312	0.31
04	02	861128	18.52	61	64	05	02	4 312	6.17
04	03	861128	18.52	38	63	55	38	4 312	5.25
04	04	861128	18.52	63	55	38	38	4 312	6.17
04	05	861128	18.52	63	55	61	38	4 312	6.17
01	01	861129	17.59	55	61	38	38	6 052	0.31
01	02	861129	17.59	55	61	38	55	6 052	2.35
01	03	861129	17.59	61	38	55	61	6 052	3.52
01	04	861129	17.59	38	55	61	02	3 312	5.86
01	05	861129	17.59	63	64	05	02	6 052	2.05
01	06	861129	17.59	55	61	38	02	3 312	4.98
01	07	861129	17.59	05	64	05	02	6 052	5.86
02	01	861129	17.59	61	38	55	02	6 052	2.35
02	02	861129	17.59	64	63	05	02	6 052	5.86
02	03	861129	17.59	63	05	64	03	6 052	5.86
02	04	861129	17.59	05	64	63	03	6 052	5.86
02	05	861129	17.59	64	63	05	03	5 052	5.86
02	06	861129	17.59	63	05	64	03	5 052	5.86
02	07	861129	17.59	05	38	61	03	5 052	5.86
02	08	861129	17.59	38	61	55	03	5 052	4.98
02	09	861129	17.59	61	55	38	03	5 052	5.57
02	10	861129	17.59	55	38	61	03	5 052	7.33
02	11	861129	17.59	63	05	64	03	5 052	5.86
02	12	861129	17.59	61	38	55	04	01 5 052	5.86
02	13	861129	17.59	63	64	05	04	01 5 052	5.86
02	14	861129	17.59	64	05	63	04	01 5 052	5.86
02	15	861129	17.59	05	63	64	04	12 5 052	5.86
02	16	861129	17.59	63	64	04	12 5 052	4.69	

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes			Sun Position Vert.	Beauf. No.	Course (Deg.)	Latitude Longitude	Position KM In Leg
				Left	Right	Rec.					
03	01	861129	17.59	64	05	63	05	01	5	052	14 02 N 116 54 W 5.86
03	02	861129	17.59	05	63	64	05	01	5	052	2.35
03	03	861129	17.59	55	61	38	06	01	5	052	5.86
03	04	861129	17.59	61	38	55	06	01	5	052	5.86
03	05	861129	17.59	38	55	61	06	01	5	052	5.86
03	06	861129	17.59	55	61	38	06	02	5	052	5.86
03	07	861129	17.59	61	38	55	06	02	5	052	2.64
04	01	861129	17.59	63	64	05	06	03	5	051	14 12 N 116 36 W 4.69
05	01	861129	18.15	05	63	64	06	03	5	051	14 16 N 116 29 W 5.75
05	02	861129	18.15	05	63	64	06	03	5	051	14 19 N 116 31 W 0.30
01	01	861130	18.52	64	63	05	02	03	2	052	15 14 N 115 17 W 6.17
01	02	861130	18.52	63	05	64	02	03	2	052	6.79
01	03	861130	18.52	05	64	63	02	03	3	052	2.47
01	04	861130	18.52	55	61	38	02	03	3	052	5.86
01	05	861130	18.52	05	64	63	02	02	3	052	3.70
01	06	861130	18.52	64	63	05	02	02	3	052	3.09
02	01	861130	18.52	55	38	61	02	02	3	051	6.17
02	02	861130	18.52	38	61	55	02	02	3	051	6.17
02	03	861130	18.52	61	55	38	03	02	3	051	6.17
02	04	861130	18.52	55	38	61	03	01	3	051	6.17
02	05	861130	18.52	38	61	55	03	01	3	051	6.17
02	06	861130	18.52	61	55	38	03	01	3	051	6.17
02	07	861130	18.52	63	64	05	03	01	3	051	6.17
02	08	861130	18.52	64	05	63	03	01	2	051	6.17
02	09	861130	18.52	05	63	64	03	01	2	051	6.17
02	10	861130	18.52	63	64	05	04	01	2	051	4.01
02	11	861130	18.52	55	61	38	05	01	1	051	1.54
03	01	861130	18.52	05	63	64	04	01	1	051	4.32
03	02	861130	18.52	61	38	55	05	01	1	051	1.85
03	03	861130	18.52	61	38	55	05	01	2	051	6.17
03	04	861130	18.52	38	55	61	05	01	3	051	3.70
03	05	861130	18.52	55	61	38	05	01	3	051	2.47
04	01	861130	18.52	61	38	55	05	01	4	051	6.17
04	02	861130	18.52	38	55	61	05	01	4	051	2.16
04	03	861130	18.52	63	64	05	05	01	4	051	4.01
04	04	861130	18.52	64	05	63	06	02	02	051	
04	05	861130	18.52	64	05	63	06	02	02	051	

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes	Sun Position Horz.	Position Vert.	Beauf. No.	Course (Deg.)	Latitude Longitude	Position KM In Leg
04	06	861130	18.52	05	63	64	06	02	4	051
05	01	861130	18.52	63	64	05	06	02	4	051
05	02	861130	18.52	64	05	63	05	01	4	051
05	03	861130	18.52	64	05	63	04	01	4	051
05	04	861130	18.52	55	61	38	04	01	4	051
05	05	861130	18.52	61	38	55	04	01	4	051
05	06	861130	18.52	63	64	05	04	01	4	051
01	01	861201	17.96	55	38	61	02	03	03	050
01	02	861201	17.96	55	38	61	02	03	03	050
01	03	861201	17.96	38	61	55	02	03	03	050
02	01	861201	17.78	61	55	38	02	03	03	050
02	02	861201	17.78	63	64	05	02	03	03	050
02	03	861201	17.78	55	38	61	02	02	02	050
02	04	861201	17.78	38	61	55	03	02	02	050
02	05	861201	17.78	64	63	05	03	02	02	050
02	06	861201	17.78	05	63	64	03	02	02	050
02	07	861201	17.78	63	64	05	03	02	02	050
02	08	861201	17.78	64	05	63	03	02	02	050
02	09	861201	17.78	64	05	63	05	02	02	050
02	10	861201	17.78	05	63	64	05	01	05	352
02	11	861201	17.78	63	64	05	05	01	05	352
02	12	861201	17.78	55	61	38	05	01	05	352
02	13	861201	17.78	61	38	55	05	01	05	352
02	14	861201	17.78	38	55	61	05	01	05	352
02	15	861201	17.78	55	61	38	06	01	05	352
02	16	861201	17.78	61	38	55	06	01	05	352
02	17	861201	17.78	38	55	61	06	01	05	352
02	18	861201	17.78	05	63	64	05	06	01	05
02	19	861201	17.78	63	64	05	06	01	05	352
02	20	861201	17.78	64	05	63	07	01	05	352
02	21	861201	17.78	64	05	63	07	01	05	352
02	22	861201	17.78	05	63	64	07	01	05	352
02	23	861201	17.78	63	64	05	07	01	05	352
02	24	861201	17.78	64	05	63	08	01	05	352
02	25	861201	17.78	55	61	38	08	01	05	352
02	26	861201	17.78	61	38	55	08	01	05	352
02	27	861201	17.78	38	55	61	08	01	05	352

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes	Sun Position Horz. Vert.	Beauf. No.	Course (Deg.)	Position Latitude Longitude	KM In Leg
02	28	861201	17.78	55	61	38	08	01	5
02	29	861201	17.78	61	38	55	08	02	5
02	30	861201	17.78	38	55	61	08	02	5
02	31	861201	17.78	38	55	61	05	05	5
02	32	861201	17.78	63	64	05	05	05	5
02	33	861201	17.78	63	64	05	05	05	5
02	34	861201	17.78	64	05	63	05	05	5
02	35	861201	17.78	64	05	63	05	06	6
02	36	861201	17.78	64	05	63	05	06	6
01	01	861202	18.52	55	63	05	05	03	2
01	02	861202	18.52	63	05	55	05	03	3
01	03	861202	18.52	05	55	63	05	03	3
01	04	861202	18.52	38	64	61	05	03	3
01	05	861202	18.52	38	64	61	05	03	3
01	06	861202	18.52	05	55	63	05	03	3
01	07	861202	18.52	55	63	05	05	03	3
01	08	861202	18.52	63	05	55	05	03	3
01	09	861202	18.52	64	61	38	05	02	3
02	01	861202	18.52	61	38	64	06	02	3
02	02	861202	18.52	38	64	61	06	02	3
02	03	861202	18.52	64	61	38	06	01	3
03	01	861202	18.52	63	05	55	06	01	3
04	01	861202	18.52	05	55	63	06	01	3
04	02	861202	18.52	64	61	38	07	01	3
04	03	861202	18.52	55	63	05	07	01	3
04	04	861202	18.52	63	05	55	07	01	3
05	01	861202	18.52	61	38	64	07	01	3
06	01	861202	18.52	38	64	61	08	01	3
06	02	861202	18.52	64	61	38	08	02	3
07	01	861202	18.52	55	63	05	08	02	2
07	02	861202	18.52	63	05	55	09	02	2
07	03	861202	18.52	05	55	63	09	02	2
08	01	861202	18.52	55	63	05	09	03	2
08	02	861202	18.52	63	05	55	09	03	2
08	03	861202	18.52	38	64	61	09	03	2
08	04	861202	18.52	55	63	05	09	03	2

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes		Sun Position	Beauf. No.	Course (Deg.)	Position Latitude	Position Longitude	KM In Leg
				Left	Right	Rec.	Horz.	Vert.			
01	01	861203	18.52	61	64	38	61	05	1	327	23 46 N 115 30 W
01	02	861203	18.52	64	38	61	64	05	1	327	23 49 N 115 31 W
01	03	861203	18.52	38	61	64	05	03	1	327	
01	04	861203	18.52	55	63	05	05	03	0	327	
01	05	861203	18.52	61	64	38	05	03	0	327	
01	06	861203	18.52	64	38	61	64	05	03	0	327
01	07	861203	18.52	64	38	61	64	05	03	0	327
01	08	861203	18.52	38	61	64	05	02	0	332	24 01 N 115 47 W
02	01	861203	18.52	05	63	55	05	02	0	332	24 01 N 115 46 W
03	01	861203	18.52	05	63	55	06	02	0	332	24 01 N 115 46 W
03	02	861203	18.52	63	55	05	06	02	1	332	6.17
03	03	861203	18.52	55	05	63	06	02	1	332	6.48
03	04	861203	18.52	64	38	61	64	06	01	1	332
04	01	861203	18.52	38	61	64	06	01	1	332	6.17
04	02	861203	18.52	55	63	05	06	01	0	332	6.17
04	03	861203	18.52	64	61	38	61	07	01	0	332
04	04	861203	18.52	63	05	55	07	01	0	332	6.17
04	05	861203	18.52	05	55	63	07	01	0	332	6.17
04	06	861203	18.52	55	63	05	07	01	0	332	6.17
04	07	861203	18.52	63	05	55	08	01	0	332	6.17
04	08	861203	18.52	05	55	63	08	01	0	332	6.17
04	09	861203	18.52	55	63	05	08	01	0	332	2.78
04	10	861203	14.82	55	63	05	08	01	0	332	0.99
05	01	861203	14.82	64	61	38	64	09	01	0	332
05	02	861203	18.52	64	61	38	64	09	02	0	332
05	03	861203	18.52	61	38	64	61	09	02	0	332
05	04	861203	18.52	38	64	61	38	09	02	0	332
05	05	861203	18.52	64	61	38	64	09	02	0	332
05	06	861203	18.52	61	38	64	64	09	02	0	332
05	07	861203	18.52	05	63	55	09	02	0	332	5.56
05	08	861203	18.52	38	61	55	63	09	03	0	332
05	09	861203	18.52	38	61	55	63	09	03	0	332
05	10	861203	18.52	05	63	55	63	09	03	0	332
01	01	861204	18.89	55	63	05	05	05	03	2	329
01	02	861204	18.89	64	61	38	69	05	03	2	329
02	01	861204	18.89	63	05	55	65	05	03	2	329
02	02	861204	18.89	63	05	55	65	05	02	1	329

Table 2. (continued)

Series	Leg	Date	Speed Km/Hr	Observer Codes			Sun Position		Beauf. No.	Course (Deg.)	Position Latitude		KM In Leg
				Left	Right	Rec.	Horz.	Vert.					
02	03	861204	18.89	05	55	63	05	02	1	329	6.30		
02	04	861204	18.89	55	63	05	05	02	1	329	6.30		
02	05	861204	18.89	64	38	61	06	01	1	329	5.35		
03	01	861204	17.96	38	61	64	06	01	0	331	5.09		
04	01	861204	17.96	63	55	05	06	01	0	331	5.99		
04	02	861204	17.96	55	05	63	06	01	0	331	5.99		
04	03	861204	17.96	05	63	55	07	01	0	331	5.99		
04	04	861204	17.96	61	64	38	07	01	0	331	3.29		
04	05	861204	17.96	05	63	55	07	01	0	331	5.69		
04	06	861204	17.96	63	55	05	07	01	0	331	3.29		
04	07	861204	17.96	55	05	63	07	01	0	331	5.99		
04	08	861204	17.96	64	38	61	08	01	1	331	1.20		
05	01	861204	17.96	38	61	64	08	01	1	331	4.79		
05	02	861204	17.96	61	64	38	08	01	1	331	5.99		
05	03	861204	17.96	64	38	61	08	02	1	331	5.99		
05	04	861204	17.96	38	61	64	08	02	1	331	2.10		
05	05	861204	17.96	63	55	05	09	02	1	331	5.99		
05	06	861204	17.96	55	05	63	09	02	1	331	4.19		
05	07	861204	17.96	55	05	63	09	02	1	334	1.80		
05	08	861204	17.96	05	63	55	09	02	1	334	6.29		
06	01	861204	17.96	63	55	05	09	02	1	334	3.89		
07	01	861204	17.96	38	64	61			1	334	27 44 N	117 56 W	1.20

Table 3. Marine mammal sightings, classified by species code groups, encountered in the eastern tropical Pacific during July 29 through December 6, 1986.

DATE YR/MODY	SERIES	LEG	SIGHT NUMBER	SUN POSITION HORZ.	BEAUF. VERT.	DETECTED BY	PERP. DIST. (KM)	LATITUDE DEG MIN	LONGITUDE DEG MIN	PROPORTION (% OF SCHOOL)			SPECIES CODE: 2	
										EST LOW	MEAN BEST	SCHOOL SIZE EST		
860802	01	12	01	09	01	2	05	1.0	22 10 N	119 56 W	100.0	77.0	66.0	
860803	01	02	01	08	02	2	05	4.1	19 15 N	121 21 W	52.0	95.0	78.0	
860803	07	09	07	03	02	3	38	1.7	17 55 N	121 43 W	100.0	116.0	112.0	
860805	01	03	02	09	02	5	05	4.5	12 13 N	123 02 W	100.0	7.0	7.0	
860805	01	03	01	09	02	5	38	0.2	12 13 N	123 01 W	82.5	67.0	57.0	
860806	02	02	01	12	12	3	61	0.3	08 35 N	123 30 W	100.0	67.0	62.0	
860809	01	06	01	12	12	3	64	0.2	00 52 S	125 18 W	100.0	82.0	70.0	
860815	02	06	01	11	02	5	63	0.8	02 43 S	117 45 W	91.7	633.0	517.0	
860817	03	09	03	06	01	3	38	2.2	04 51 S	110 18 W	53.7	177.0	151.0	
860908	02	02	03	02	03	2	64	0.5	08 32 S	087 43 W	20.0	166.0	144.0	
860910	01	12	01	12	01	4	55	0.2	06 48 S	092 35 W	45.0	16.0	12.0	
860910	02	29	02	29	02	5	38	1.6	07 33 S	093 41 W	100.0	436.0	379.0	
860917	01	07	01	07	01	5	55	3.3	00 50 N	093 18 W	100.0	151.0	117.0	
860917	06	02	05	02	05	4	55	7.3	01 24 N	092 48 W	55.6	465.0	395.0	
860917	07	04	09	04	09	4	61	0.1	01 23 N	092 35 W	53.3	417.0	333.0	
860917	08	01	10	01	10	4	05	0.8	01 N	092 W	20.0	187.0	165.0	
860918	01	02	01	02	01	4	05	0.5	02 28 N	091 00 W	100.0	37.0	29.0	
860928	03	03	02	03	02	3	64	5.0	04 13 N	081 25 W	100.0	114.0	100.0	
861009	06	01	15	10	02	4	38	2.0	00 25 S	093 53 W	100.0	98.0	87.0	
861011	06	01	13	01	04	01	5	64	0.1	01 53 N	094 53 W	60.0	170.0	145.0
861012	02	31	03	11	12	5	64	7.7	02 24 N	113 25 W	100.0	115.0	98.0	
861017	01	02	03	04	11	02	5	61	1.8	02 32 N	113 38 W	50.0	255.0	237.0
861017	02	01	03	01	06	03	5	61	3.5	03 42 N	118 55 W	71.0	97.0	82.0
861019	01	03	01	04	01	5	64	0.1	03 54 N	119 12 W	100.0	34.0	27.0	
861019	02	06	02	06	02	5	63	1.1	04 21 N	121 48 W	100.0	126.0	110.0	
861020	01	02	01	02	01	5	61	1.1	04 28 N	122 14 W	100.0	47.0	38.0	
861020	02	08	02	02	02	6	05	4.1	05 15 N	131 55 W	100.0	47.0	40.0	
861023	01	10	01	07	02	5	61	0.0	05 18 N	132 00 W	100.0	68.0	62.0	
861023	02	01	02	07	01	5	38	1.6	07 17 N	143 56 W	100.0	158.0	137.0	
861027	01	02	01	05	03	3	05	1.8	09 14 N	146 27 W	75.0	179.0	156.0	
861028	04	06	04	12	12	3	64	0.5						

Table 3. (continued)

SPECIES: OFFSHORE SPOTTED DOLPHIN
(*STENELLA ATTENUATA*)

DATE YR/MOD/Y	SERIES	LEG	SIGHT NUMBER	SUN POSITION HORZ.	DETECTED BY	PERP. DIST. (KM)	LATITUDE DEG MIN	LONGITUDE DEG MIN	PROPORTION (% OF SCHOOL)	MEAN SCHOOL SIZE EST	
							VERT.	BEAUF.	NUMBER	BEST	LOW
861030	03	14	02	09	01	5	38	0.3	13 41 N	150 07 W	100.0
861113	08	04	06	4			38	0.0	09 43 N	138 44 W	28.3
861115	02	03	01	4			61	0.5	11 56 N	133 04 W	12.2
861115	03	04	02	3			55	0.4	12 05 N	129 59 W	41.7
861115	04	08	04	07	02	2	64	9.4	12 29 N	132 34 W	6.3
861116	03	01	01	2			64	4.1	14 01 N	131 08 W	6.3
861117	03	14	06	3			38	0.4	13 10 N	127 42 W	57.3
861121	03	02	01	01	01	5	38	0.1	07 44 N	116 12 W	99.0
861124	01	30	02	09	01	5	61	0.5	04 56 N	108 05 W	46.3
861126	01	24	03	4			38	0.6	07 40 N	111 52 W	85.0
861127	01	04	01	05	03	3	63	1.9	09 01 N	113 26 W	100.0
861127	02	06	02	06	01	4	61	0.6	09 25 N	113 45 W	100.0
861127	03	03	03	4			38	2.6	09 33 N	113 56 W	26.7
861128	02	04	01	3			55	2.0	11 40 N	115 56 W	25.0
861130	04	06	05	06	02	4	63	3.1	15 58 N	114 17 W	100.0
861201	01	03	01	02	03	5	61	0.0	17 27 N	112 27 W	100.0

Table 3. (continued)

SPECIES: SPINNER DOLPHIN (STENELLA LONGIROSTRIS)								SPECIES CODE: 3				
DATE	SERIES	LEG	SIGHT NUMBER	SUN POSITION	DEAUF.	DETECTED BY	PERP.	LATITUDE	LONGITUDE	PROPORTION (% OF SCHOOL)	MEAN DIST. (KM)	SCHOOL SIZE EST
YR/MOD/Y				HORZ.	VERT.	NUMBER		DEG MIN	DEG MIN		BEST	LOW
860805	01	03	01	09	02	5	38	0.2	12 13 N	123 01 W	17.5	67.0
860910	01	12	01		4		55	0.2	06 48 S	092 35 W	5.0	16.0
861126	01	24	03		4		38	0.6	07 40 N	111 52 W	15.0	207.0

Table 3. (continued)

SPECIES: COMMON DOLPHIN
(*DELPHINUS DELPHIS*)

DATE YR/MODY	SERIES	LEG	SIGHT NUMBER	SUN POSITION VERT.	BEAUF. NUMBER	DETECTED BY	PERP. DIST. (KM)	LATITUDE DEG MIN	LONGITUDE DEG MIN	PROPORTION (% OF SCHOOL)		MEAN SCHOOL SIZE EST BEST	SPECIES CODE: 5	
										EST LOW	EST HIGH			
860825	03	02	02	4	38	0.1	03	38 S	085 18 W	100.0	720.0	615.0		
860826	01	02	02	2	55	1.1	03	28 S	083 41 W	100.0	43.0	41.0		
860826	02	02	03	2	38	0.4	03	24 S	083 32 W	100.0	72.0	64.0		
860826	05	01	08	2	38	0.0	03	14 S	083 02 W	100.0	18.0	14.0		
860826	06	04	11	2	55	1.3	03	09 S	082 38 W	100.0	242.0	177.0		
860905	01	16	01	5	64	0.2	05	42 S	082 37 W	100.0	645.0	590.0		
860914	01	05	03	3	05	0.0	00	07 N	099 37 W	100.0	91.0	72.0		
860916	01	07	01	5	55	0.3	00	02 S	095 19 W	97.0	69.0	54.0		
860916	03	01	03	4	64	0.4	00	18 S	095 16 W	100.0	305.0	238.0		
860916	05	02	04	08	03	5.1	00	31 S	094 28 W	100.0	267.0	182.0		
860925	02	05	02	5	55	0.6	00	27 S	081 47 W	100.0	575.0	500.0		
860925	03	02	03	4	61	0.4	00	35 S	081 49 W	100.0	1004.0	880.0		
860925	05	05	04	4	64	0.4	00	52 S	081 56 W	100.0	367.0	333.0		
860925	09	06	06	4	38	0.7	00	58 S	082 22 W	100.0	270.0	227.0		
861010	01	01	01	4	61	1.8	01	54 S	089 05 W	100.0	137.0	122.0		
861010	03	09	04	3	61	3.6	01	44 S	089 44 W	98.8	1540.0	1360.0		
861010	07	03	11	3	38	0.0	01	37 S	090 24 W	100.0	827.0	712.0		
861010	08	03	14	3	05	5.2	01	34 S	090 45 W	100.0	455.0	407.0		
861011	01	01	04	03	61	0.3	01	27 S	092 36 W	100.0	142.0	125.0		
861011	01	04	03	3	64	1.0	01	27 S	092 45 W	100.0	123.0	111.0		
861117	04	01	07	4	64	0.5	13	05 N	127 34 W	100.0	25.0	21.0		
861202	01	09	01	05	02	3	61	2.6	21 07 N	113 49 W	100.0	315.0	267.0	
861202	03	01	02	06	01	3	05	4.6	21 21 N	113 57 W	100.0	245.0	200.0	
861202	04	05	03	07	01	3	61	4.8	21 34 N	114 02 W	100.0	694.0	606.0	
861202	07	03	05	09	02	2	05	2.8	21 44 N	114 18 W	100.0	152.0	134.0	
861202	08	01	06	09	03	2	63	1.2	21 45 N	114 21 W	100.0	35.0	33.0	
861203	01	08	02	05	02	0	38	3.7	24 02 N	115 42 W	100.0	274.0	248.0	
861203	03	04	03	06	01	1	38	5.6	24 11 N	115 52 W	100.0	312.0	290.0	
861204	04	08	08	08	01	1	64	7.0	27 19 N	117 39 W	52.5	277.0	251.0	
861204	06	01	12	09	02	1	55	6.1	27 38 N	117 58 W	93.3	223.0	200.0	
861204	07	01	14				3.7	27 44 N	117 56 W	71.2	425.0	344.0		

Table 3. (continued)

SPECIES: COASTAL SPOTTED DOLPHIN (S.A. GRAFFMAN)							SPECIES CODE: 6					
DATE	SERIES	LEG	SIGHT NUMBER	SUN POSITION HORZ.	DEAUF. VERT.	DETECTED BY	PERP. DIST. (KM)	LATITUDE DEG MIN	LONGITUDE DEG MIN	PROPORTION (% OF SCHOOL)	MEAN SCHOOL SIZE EST BEST	MEAN SCHOOL SIZE EST LOW
861004	01	01	01		2		61	08 45 N	079 29 W	100.0	15.0	13.0
861004	01	04	05		1		55	08 32 N	079 29 W	100.0	67.0	55.0
861004	02	01	06		1		38	08 26 N	079 28 W	100.0	159.0	142.0

Tabel 3. (continued)

SPECIES: EASTERN SPINNER DOLPHIN
(*STENELLA LONGIROSTRIS*)

DATE YR/MODY	SERIES	LEG	SIGHT NUMBER	SUN POSITION HORZ.	DETECTED BY	PERP. DIST. (KM)	LATITUDE DEG MIN	LONGITUDE DEG MIN	PROPORTION (% OF SCHOOL)		MEAN SCHOOL SIZE EST BEST	LOW
									MIN	MAX		
860804	01	04	01	09	02	3	38	0.2	15 49 N	122 20 W	100.0	7.0
860806	04	03	02	12	12	5	63	1.5	08 09 N	123 46 W	10.0	10.0
860815	02	06	01	11	02	5	63	0.8	02 43 S	117 45 W	7.3	517.0
861118	01	10	01	12	02	5	38	2.2	12 18 N	125 58 W	99.0	354.0
861128	02	04	01	01	02	3	55	2.0	11 40 N	115 56 W	75.0	112.0
861129	01	07	01	02	02	6	38	0.3	13 33 N	117 31 W	100.0	27.0

Table 3. (continued)

SPECIES: WHITEBELLY SPINNER DOLPHIN
(STENELLA LONGIROSTRIS)

DATE YR/MOD/Y	SERIES	LEG	SIGHT NUMBER	SUN POSITION HORZ.	DETECTED VERT.	PERP. BY DIST. (KM)	LATITUDE DEG MIN	LONGITUDE DEG MIN	PROPORTION (% OF SCHOOL)		MEAN SCHOOL SIZE EST BEST	SPECIES CODE: 11 LOW	
									31.3	95.0			
860803	01	02	01	08	02	2	05	19 15 N	121 21 W	100.0	110.0	78.0	
860803	03	02	03	09	02	2	63	19 05 N	121 26 W	100.0	89.0	51.0	
860810	05	01	06	01	01	3	55	0.4	01 48 S	128 51 W	100.0	45.0	71.0
860816	02	09	01	11	01	5	38	0.1	03 51 S	114 23 W	100.0	45.0	40.0
860817	03	09	03	06	01	3	38	2.2	04 51 S	110 18 W	46.3	177.0	151.0
860908	02	02	02	03	02	2	64	0.5	08 32 S	087 43 W	60.0	166.0	144.0
860917	06	02	05	02	05	4	55	7.3	01 24 N	092 48 W	3.8	465.0	395.0
860917	07	04	09	09	04	4	61	0.1	01 23 N	092 35 W	46.7	417.0	333.0
860917	08	01	10	01	04	4	05	0.8	01 N	092 W	55.0	187.0	165.0
861012	02	13	01	04	01	5	64	0.1	01 53 N	094 53 W	40.0	170.0	145.0
861014	03	10	02	02	05	5	63	0.5	02 40 N	101 09 W	100.0	41.0	37.0
861017	02	03	04	11	02	5	61	1.8	02 32 N	113 38 W	50.0	255.0	237.0
861019	01	03	01	06	03	5	61	3.5	03 42 N	118 55 W	29.0	97.0	82.0
861028	04	06	04	12	12	3	64	0.5	09 14 N	146 27 W	25.0	179.0	156.0
861113	08	04	06	04	06	4	38	0.0	09 43 N	138 44 W	71.7	533.0	467.0
861115	02	03	01	01	01	4	61	0.5	11 56 N	133 04 W	87.7	200.0	171.0
861115	03	04	02	04	02	3	55	0.4	12 05 N	129 59 W	25.0	73.0	63.0
861115	04	08	04	07	02	2	64	9.4	12 29 N	132 34 W	93.7	420.0	383.0
861116	03	01	01	12	04	4	64	4.1	14 01 N	131 08 W	93.7	417.0	395.0
861116	04	12	04	04	04	3	55	2.3	14 36 N	130 28 W	100.0	40.0	35.0
861117	01	08	02	12	02	3	55	0.7	13 41 N	128 50 W	100.0	31.0	27.0
861117	02	11	04	01	01	3	36	1.3	13 27 N	128 23 W	38.3	170.0	142.0
861117	03	14	06	03	03	3	38	0.4	13 10 N	127 42 W	9.3	93.0	73.0
861124	01	30	02	09	01	5	61	0.5	04 56 N	108 05 W	53.8	155.0	131.0
861127	03	03	03	02	09	4	38	2.6	09 33 N	113 56 W	73.3	167.0	138.0

Table 3. (continued)

SPECIES: STRIPED DOLPHIN
(S. COERULEOALBA)

DATE	SERIES	LEG	SIGHT NUMBER	SUN POSITION HORZ.	DETECTIED VERT.	PERP. NUMBER	LATITUDE DEG MIN	LONGITUDE DEG MIN	PROPORTION (% OF SCHOOL)	MEAN SCHOOL SIZE EST	
										BEST	LOW
860802	03	06	03	02	02	1	38	21 21 N	120 18 W	65.8	45.0
860816	04	01	03	06	02	4	55	04 08 S	113 31 W	100.0	4.0
860818	02	10	03	11	01	5	55	05 18 S	107 51 W	100.0	3.0
860818	03	05	04	10	12	5	64	05 17 S	107 36 W	100.0	10.0
860821	03	09	01	11	01	4	55	02 10 S	096 59 W	100.0	36.0
860825	01	11	01	11	01	4	63	03 40 S	085 43 W	100.0	30.0
860826	04	04	07	07	02	2	38	01 1.1	03 17 S	100.0	9.0
860913	07	01	05	09	02	4	64	04 0.4	02 18 S	100.0	7.0
860913	08	02	06	09	02	4	38	1.0	02 02 S	100.0	41.0
860914	07	02	10	07	01	4	63	1.8	00 47 N	100.0	36.0
860914	07	02	10	07	01	5	38	1.0	00 26 S	100.0	20.0
860915	01	03	01	03	02	5	64	1.7	00 22 S	100.0	24.0
860915	03	01	03	01	03	5	38	0.8	00 21 S	100.0	28.0
860915	09	02	06	06	02	5	55	0.3	00 27 N	100.0	32.0
860915	10	03	07	07	03	5	61	0.1	00 35 N	100.0	36.0
860917	04	04	03	04	03	5	38	0.5	01 15 N	100.0	42.0
860917	07	04	08	04	08	4	55	0.0	01 23 N	100.0	15.0
860918	03	02	02	02	02	4	61	0.5	02 33 N	100.0	136.0
860918	05	13	05	13	05	5	38	0.0	03 12 N	100.0	154.0
860919	01	05	01	05	01	5	63	0.2	03 59 N	100.0	0.0*
860920	03	01	04	01	04	3	64	1.0	05 52 N	100.0	136.0
860923	04	03	04	03	04	3	38	2.8	05 46 N	100.0	150.0
860923	07	01	07	01	07	4	55	05 1.3	05 27 N	100.0	150.0
860926	04	14	02	08	02	5	05	0.5	00 42 S	100.0	150.0
861009	02	08	02	08	02	5	05	4.0	00 34 S	100.0	150.0
861009	03	09	03	09	03	5	38	2.9	00 54 S	100.0	150.0
861009	03	12	04	03	12	5	61	3.1	01 04 S	100.0	150.0
861009	04	08	06	03	02	4	55	0.5	01 44 N	100.0	150.0
861010	03	09	04	04	03	3	61	5.0	01 20 S	100.0	150.0
861010	04	05	06	12	12	3	64	3.6	01 44 S	100.0	150.0
861010	04	05	06	12	12	3	64	1.9	01 41 S	100.0	150.0

100

SPECIES CODE: 13

Table 3. (continued)

SPECIES: STRIPED DOLPHIN
(*S. COERULEOALEA*)

SPECIES CODE: 13

DATE	SERIES	LEG	SIGHT NUMBER	SUN POSITION HORIZ.	DETECTIED VERT.	PERP. DIST. (KM)	LATITUDE DEG MIN	LONGITUDE DEG MIN	PROPORTION (% OF SCHOOL)	MEAN SCHOOL SIZE EST BEST	MEAN SCHOOL SIZE EST LOW	
861011	04	03	11	03	3	38	2.5	01 26 S	093 09 W	100.0	41.0	
861011	06	02	16	10	03	38	1.3	00 16 S	093 56 W	100.0	61.0	
861021	03	17	07	08	12	5	38	0.7	05 43 N	126 35 W	100.0	53.0
861022	01	20	02	08	12	5	61	0.4	05 42 N	128 52 W	100.0	37.0
861026	02	02	01		3		05	0.9	06 22 N	141 32 W	100.0	30.0
861027	04	15	03	11	02	4	38	1.0	07 53 N	145 26 W	100.0	62.0
861028	01	06	01	05	02	3	64	1.6	08 34 N	146 04 W	100.0	1.0
861028	03	02	03	05	01	3	05	1.7	08 53 N	146 13 W	100.0	1.0
861117	02	11	04	01	01	3	36	1.3	13 27 N	128 23 W	61.7	38.0
861124	02	03	03	10	02	5	61	1.4	05 06 N	108 10 W	100.0	30.0
861125	01	05	01	06	02	5	38	0.0	05 46 N	109 09 W	100.0	74.0
861125	02	07	03	06	01	6	05	0.2	05 55 N	109 22 W	100.0	84.0
861129	02	16	02	04	12	5	64	0.1	14 01 N	116 54 W	100.0	73.0
861204	01	02	01	05	03	2	61	0.2	26 38 N	117 07 W	100.0	142.0
861204	02	05	02	04	12	1	38	0.4	26 51 N	117 16 W	100.0	162.0
861204	02	05	03				64	6.4	26 51 N	117 16 W	100.0	162.0
861204	04	08	08				64	7.0	27 19 N	117 39 W	47.5	142.0
861204	06	01	12	09	02	1	55	6.1	27 38 N	117 58 W	6.7	142.0
861204	07	01	14				64	3.7	27 44 N	117 56 W	28.7	142.0

Table 3. (continued)

SPECIES: ROUGH-TOOTHED DOLPHIN
(*STENO BREDANENSIS*)

860803	03	02	04	09	02	2	38	0.1	19	05	N	121	26	W	100.0	1.0	1.0
860928	04	01	03	12	12	3	64	0.0	04	12	N	081	24	W	20.0	78.0	68.0
860929	04	03	06	02	01	1	05	4.0	06	40	N	079	53	W	58.0	31.0	27.0
861105	06	01	08	12	12	2	55	0.4	06	41	N	081	41	W	100.0	3.0	2.0

Table 3. (continued)

SPECIES: BOTTLENOSED DOLPHINS
(TURSIOPS TRUNCATUS)

SPECIES CODE: 18

YR/MODY	DATE	SERIES	LEG	SLIGHT NUMBER	SUN POSITION HORZ.	DETECT.	PERP.	LATITUDE DIST. (KM)	LONGITUDE DEG MIN	PROPORTION (% OF SCHOOL)		MEAN SCHOOL SIZE EST
										BEST	LOW	
860802	03	06	03	02	02	1	38	3.8	21 21 N	120 18 W	9.3	53.0
860811	02	02	02	11	01	5	61	0.9	02 01 S	130 11 W	100.0	1.0
860815	02	06	01	11	02	5	63	0.8	02 43 S	117 45 W	1.0	633.0
860817	01	17	02	12	4	55	2.1	04 45 S	110 42 W	22.6	16.0	
860826	11	03	14	07	01	2	38	2.6	03 06 S	082 24 W	100.0	19.0
860906	01	02	01	5	5	38	0.2	09 06 S	083 42 W	20.0	0.0*	
860908	01	13	02	2	2	38	1.5	08 43 S	087 36 W	90.0	55.0	
860909	03	03	05	12	3	64	0.2	05 04 S	089 57 W	7.5	6.0	
860913	05	04	04	12	12	5	38	1.0	02 53 S	099 30 W	12.0	21.0
860916	01	07	01	5	5	55	0.3	00 02 S	095 19 W	3.0	69.0	
860920	02	02	02	01	3	38	1.8	05 50 N	082 56 W	50.0	4.0	
860921	01	03	01	1	1	64	0.2	07 59 N	079 30 W	100.0	15.0	
860921	03	09	07	2	2	38	2.6	08 37 N	079 29 W	100.0	8.0	
860923	05	01	06	3	3	63	3.9	05 41 N	079 34 W	4.3	262.0	
860927	03	04	01	5	61	2.0	01 30 N	082 59 W	30.8	18.0		
860928	04	01	03	12	12	64	0.0	04 12 N	081 24 W	5.0	78.0	
860929	04	03	06	02	01	1	05	4.0	06 40 N	079 53 W	34.0	31.0
861004	03	03	07	1	1	05	3.5	08 12 N	079 27 W	100.0	163.0	
861005	01	01	01	4	63	0.7	06 51 N	080 38 W	50.0	14.0		
861005	05	04	07	12	3	61	4.0	06 38 N	081 35 W	27.0	22.0	
861010	02	03	02	12	3	38	0.5	01 37 S	090 26 W	30.0	32.0	
861010	04	05	06	12	3	55	0.0	01 48 S	089 14 W	30.0	22.0	
861010	05	01	07	3	64	1.9	01 41 S	089 58 W	31.5	91.0		
861010	05	01	07	3	63	1.0	01 41 S	090 03 W	100.0	131.0		
861010	06	03	10	3	63	0.1	01 38 S	090 14 W	53.3	23.0		
861116	04	11	03	3	55	3.0	14 39 N	130 32 W	25.0	11.0		
861130	01	05	03	02	02	3	05	2.3	15 21 N	115 07 W	100.0	211.0

Table 3. (continued)

SPECIES: RISSO'S DOLPHIN
(GRAMMUS GRISEUS)

SPECIES CODE: 21

104

DATE YR/MODY	SERIES	LEG	SIGHT NUMBER	SUN POSITION HORZ.	DETECTED BY	PERP. DIST. (KM)	LATITUDE DEG MIN	LONGITUDE DEG MIN	PROPORTION (% OF SCHOOL)		MEAN SCHOOL SIZE EST	
									VERT.	NUMBER		
860809	02	03	02	01	3	05	0.2	00 54 S	125 29 W	100.0	15.0	
860809	03	10	04	01	2	64	0.6	01 03 S	126 03 W	100.0	6.0	
860905	02	06	02	02	5	55	0.1	05 52 S	082 41 W	100.0	3.0	
860906	01	02	01	01	5	38	0.2	09 06 S	083 42 W	80.0	0.0*	
860908	01	13	02	02	2	38	1.5	08 43 S	087 36 W	10.0	55.0	
860908	03	23	06	02	3	55	0.3	07 34 S	088 20 W	100.0	40.0	
860908	03	03	05	12	12	64	0.2	05 04 S	089 57 W	42.5	6.0	
860909	03	01	03	03	12	4	61	0.2	03 03 S	099 29 W	100.0	4.0
860913	04	04	04	12	12	5	38	1.0	02 53 S	099 30 W	12.0	21.0
860913	05	04	04	12	12	6	38	0.3	02 53 N	080 36 W	100.0	16.0
860924	01	09	01	09	02	6	05	0.5	00 14 N	084 45 W	100.0	4.0
860926	05	17	07	07	5	61	2.0	01 30 N	082 59 W	69.3	1.0	
860927	03	04	01	03	12	12	0.0	04 12 N	081 24 W	75.0	1.0	
860928	04	01	03	12	3	64	0.0	01 37 S	090 26 W	25.0	15.0	
861010	06	03	09	03	3	38	0.5	01 38 S	090 14 W	100.0	6.0	
861010	06	02	02	02	3	61	0.0	06 24 N	141 39 W	100.0	5.0	
861026	03	06	02	06	2	05	1.1	06 32 N	142 01 W	100.0	9.0	
861026	06	02	06	02	3	63	0.0	13 58 N	131 09 W	100.0	6.0	
861116	02	11	04	04	01	1	1.3	15 46 N	114 36 W	100.0	5.0	
861130	02					61					17.0	15.0

Tabel 3. (continued)

SPECIES: FRASER'S DOLPHIN (LAGENODELPHIS HOSEI)										SPECIES CODE: 26	
DATE YR/MODY	SERIES	LEG	SIGHT NUMBER	SUN POSITION HORZ.	DETECTED BY	PERP. DIST. (KM)	LATITUDE DEG MIN	LONGITUDE DEG MIN	PROPORTION (% OF SCHOOL)	MEAN SCHOOL SIZE EST	
										BEST	LOW
860810	01	02	01	06	03	2	61	0.6	01 37 S	127 55 W	100.0
860811	01	09	01	11	01	5	63	0.8	02 03 S	130 14 W	100.0
861021	02	07	05	09	12	5	38	2.0	05 32 N	125 50 W	100.0
861025			02	11	02	5	64	1.7	05 39 N	139 29 W	100.0

Table 3. (continued)

SPECIES: MELON-HEADED WHALE (PEPONOCEPHALA ELECTRA)										SPECIES CODE: 31	
DATE	SERIES	LEG	SIGHT NUMBER	SUN POSITION	BEAUF. VERT.	DETECTED BY	PERP. DIST. (KM)	LATITUDE DEG MIN	LONGITUDE DEG MIN	PROPORTION (% OF SCHOOL)	MEAN SCHOOL SIZE EST LOW
860923	05	01	06	3	63	3.9	05 41 N	079 34 W	79.0	262.0	238.0

Table 3. (continued)

SPECIES: FALSE KILLER WHALE
 (PSEUDORCA CRASSIDENS)

DATE YR/MODY	SERIES	LEG NUMBER	SIGHT HORZ.	SUN POSITION VERT.	DETECTED NUMBER	PERP. DIST. (KM)	LATITUDE DEG MIN	LONGITUDE DEG MIN	PROPORTION (% OF SCHOOL)		MEAN SCHOOL SIZE EST	
									BEST	LOW	BEST	LOW
860913	05	04	04	12	5	38	02 53 S	099 30 W	76.0	21.0	16.0	
861113	03	03	02	11	01	63	1.0	10 28 N	139 17 W	100.0	12.0	11.0

Table 3. (continued)

SPECIES: PILOT WHALE
(GLOBICEPHALA SP.)

SPECIES CODE: 34

108

DATE	SERIES	LEG	SIGHT NUMBER	SUN POSITION	DETECT.	PERP.	LATITUDE	LONGITUDE	PROPORTION		MEAN SCHOOL SIZE EST
									HORZ.	VERT.	
860815	04	04	03	09	12	6	55	0.6	02 45 S	117 14 W	100.0
860817	01	17	02	12	12	4	55	2.1	04 45 S	110 42 W	77.4
860914	05	02	09	12	12	4	64	0.4	00 13 N	099 29 W	100.0
860914	05	04	05	12	12	5	61	0.7	00 41 N	098 51 W	100.0
860915	08	04	03	12	12	5	63	0.5	00 22 N	096 33 W	85.5
860917	04	04	01	01	01	5	38	0.5	01 15 N	092 55 W	3.0
860926	01	01	01	01	01	5	05	1.1	00 58 S	084 47 W	100.0
860928	05	12	05	05	05	3	61	0.1	04 38 N	081 06 W	100.0
861005	01	01	01	01	01	4	63	0.7	06 51 N	080 38 W	50.0
861005	04	06	05	08	12	4	05	2.3	06 41 N	081 26 W	100.0
861005	05	04	07	12	12	3	61	4.0	06 38 N	081 35 W	73.0
861010	02	03	02	02	02	3	38	0.5	01 37 S	090 26 W	45.0
861010	02	03	01	03	03	3	55	0.0	01 48 S	089 14 W	70.0
861010	03	01	03	03	03	3	38	0.6	01 47 S	089 21 W	80.0
861010	04	05	06	12	12	3	64	1.9	01 41 S	089 58 W	12.0
861010	06	03	10	3	3	63	0.1	01 38 S	090 14 W	46.8	
861011	02	02	06	3	3	64	0.3	01 26 S	092 52 W	100.0	
861011	03	02	07	3	3	64	1.9	01 26 S	092 56 W	85.0	
861116	04	11	03	3	3	55	3.0	14 39 N	130 32 W	75.0	
861126	01	05	01	4	38	3.6	07 04 N	111 21 W	100.0	4.0	
861127	03	03	04	4	38	1.4	09 33 N	113 56 W	100.0	4.0	

Table 3. (continued)

SPECIES: KILLER WHALE
(ORCINUS ORCA)

DATE YR/MOD/Y	SERIES	LEG	SIGHT NUMBER	SUN POSITION HORZ.	DETAILED BEAUF. NUMBER	DETECTED BY	PERP. NUMBER	DIST. (KM)	LATITUDE DEG MIN	LONGITUDE DEG MIN	PROPORTION (% OF SCHOOL)	MEAN SCHOOL SIZE EST	
												BEST	LOW
860907	01	35	04		3		63	2.2	11 05 S	086 08 W	100.0	7.0	6.0
860913	02	05	01	03	01	4	64	0.0	03 09 S	099 24 W	100.0	3.0	3.0
860926	02	07	02	05	02	5	64	3.8	00 59 S	085 05 W	100.0	3.0	3.0
861113	06	07	05		01	3	63	1.0	10 04 N	138 59 W	100.0	6.0	6.0

Table 3. (continued)

SPECIES: SPERM WHALE
(PHYSETER MACROCEPHALUS)

DATE	SERIES	LEG	SIGHT NUMBER	SUN POSITION HORZ.	DETECTED VERT.	NUMBER	DIST. (KM)	PERP. DEG MIN	LATITUDE DEG MIN	LONGITUDE DEG MIN	PROPORTION (% OF SCHOOL)			MEAN SCHOOL SIZE EST. BEST	MEAN SCHOOL SIZE EST. LOW
860826	03	01	04	2	01	01	01	01	03	22 S	083	23 W	100.0	8.0	7.0
860914	01	04	02	3	02	01	01	01	00	03 N	099	35 W	100.0	10.0	8.0
860918	04	18	04	5	02	02	02	02	02	56 N	089	54 W	100.0	9.0	8.0
860920	02	02	02	38	01	03	03	03	05	50 N	082	56 W	50.0	4.0	4.0
860920	04	01	05	38	01	03	03	03	05	50 N	082	46 W	100.0	11.0	11.0
860923	05	01	05	38	01	03	03	03	05	43 N	079	33 W	100.0	5.0	5.0
860924			03	6				0.0	02	13 N	080	52 W	100.0	4.0	4.0
860926	04	07	06	4	05			1.4	00	24 S	085	03 W	100.0	10.0	10.0
860929	01	01	01	3	01			0.4	06	06 N	080	08 W	100.0	1.0	1.0
860929	04	02	05	38	01			4.0	06	39 N	079	54 W	100.0	2.0	2.0
860929	04	03	06	05	02			1.5	06	40 N	079	53 W	8.0	31.0	27.0
861011	01	03	02	3	01			0.5	01	27 S	092	43 W	100.0	1.0	1.0
861011	02	01	05	3	01			0.5	01	26 S	092	50 W	100.0	2.0	2.0
861011	03	02	09	3	01			0.5	01	26 S	092	58 W	100.0	1.0	1.0
861012	03	14	04	6	02			0.5	02	34 N	095	08 W	100.0	1.0	1.0
861022	02	15	03	12	02			0.5	05	37 N	129	37 W	100.0	6.0	6.0
861028	02	05	02	5	01			0.5	08	50 N	146	11 W	100.0	1.0	1.0
861101	01	03	01	3	05			0.5	17	24 N	153	28 W	100.0	1.0	1.0
861125			03	5	03			0.5	05	49 N	109	13 W	100.0	2.0	

Table 3. (continued)

SPECIES: PYGMY SPERM WHALE (KOGIA BREVICEPS)										SPECIES CODE: 47	
DATE	SERIES	LEG	SIGHT NUMBER	SUN POSITION	BEAUF. VERT.	DETECTED	PERR.	LATITUDE	LONGITUDE	PROPORTION (% OF SCHOOL)	MEAN SCHOOL SIZE EST
YR/MODY			HORZ.			NUMBER	BY DIST. (KM)	DEG MIN	DEG MIN	BEST	LOW
861203	04	05	05	07	01	0	05	1.1	24 29 N	115 58 W	100.0
861204	04	05	07	07	01	0	05	1.4	27 13 N	117 35 W	100.0

Table 3. (continued)

SPECIES: BEAKED WHALE (ZIPHIID)										SPECIES CODE: 49		
DATE	SERIES	LEG	SIGHT NUMBER	SUN POSITION HORZ.	DETECT.	PERP.	LATITUDE DEG MIN	LONGITUDE DEG MIN	PROPORTION (% OF SCHOOL)	MEAN BEST	MEAN SCHOOL SIZE EST	
860803	04	08	05	12	1	64	0.1	18 40 N	121 30 W	100.0	1.0	
860811	03	16	04	07	01	64	0.1	02 07 S	129 26 W	100.0	3.0	
860826	04	03	05	05	2	05	1.5	03 18 S	083 10 W	100.0	1.0	
860826	04	03	06	06	2	55	0.1	03 18 S	083 10 W	100.0	1.0	
860826	10	01	13		2	64	1.1	03 06 S	082 27 W	100.0	2.0	
860928	05	09	04	08	02	2	38	0.1	04 32 N	081 12 W	100.0	1.0
861005	04	07	06	12	12	4	64	1.3	06 41 N	081 28 W	100.0	3.0
861005	09	03	11	12	02	3	64	1.3	06 36 N	082 07 W	100.0	4.0
861017	01	10	01	06	02	5	38	0.7	02 19 N	112 23 W	100.0	1.0
861026	05	01	04	12	12	2	55	0.5	06 31 N	141 55 W	100.0	1.0
861130	01	03	02	02	03	3	05	0.7	15 17 N	115 12 W	100.0	1.0
861204	05	08	11	09	02	1	05	3.0	27 34 N	117 56 W	100.0	2.0

Table 3. (continued)

SPECIES: UNID. MESOPLODONT (MESOPLODON SP.)										SPECIES CODE: 51	
DATE	SERIES	LEG	SIGHT	SUN POSITION	BEAUF.	DETECTED	PERP.	LATITUDE	LONGITUDE	PROPORTION	MEAN SCHOOL SIZE EST
YR/MODY		NUMBER	HORZ.	VERT.	NUMBER	BY	DIST. (KM)	DEG MIN	DEG MIN	(% OF SCHOOL)	BEST
860826		05	05	10	12	2	55	0.5	03 11 S	082 50 W	100.0
860826		12	03	15	07	02	61	0.1	03 05 S	082 11 W	100.0
860907	01	29	03	03	03	3	64	0.0	11 20 S	085 58 W	100.0
860923	03	11	03	03	05	3	05	0.0	05 53 N	079 30 W	100.0

Table 3. (continued)

SPECIES: CUVIER'S BEAKED WHALE
(ZIPIHIUS CAVIROSTRIS)

SPECIES CODE: 61

DATE YR/MODY	SERIES	LEG	SIGHT NUMBER	SUN POSITION HORZ.	BEAUF. VERT.	DETECTED NUMBER	PERP. BY	DIST. (KM)	LATITUDE DEG MIN	LONGITUDE DEG MIN	PROPORTION (% OF SCHOOL)		MEAN SCHOOL SIZE EST
											BEST	LOW	
860811	02	02	03	11	01	5		05	0.6	02 01 S	130 10 W	100.0	2.0
860824			01	12	12	5		38	0.1	03 43 S	087 43 W	100.0	2.0
860928	01	08	01	02	02	3		05	0.2	03 46 N	081 44 W	100.0	2.0
861010	04	02	05			3		38	0.1	01 41 S	089 56 W	100.0	1.0
861117	01	01	01			3		38	0.4	13 47 N	129 01 W	100.0	1.0

Table 3. (continued)

SPECIES: RORQUAL
(BALAENOPTERA SP.)

DATE YR/MOD/Y	SERIES	LEG	SIGHT NUMBER		POSITION VERT.	BEAUF. NUMBER	DETECTED BY	PERP. DIST. (KM)	LATITUDE DEG MIN	LONGITUDE DEG MIN	PROPORTION (% OF SCHOOL)		MEAN SCHOOL SIZE EST BEST LOW			
			HORZ.	NUMBER												
860815	06	12	05	06		6			55	0.1	02	56 S	116 43 W	100.0	9.0	8.0
860818	01	02	01	11		03	4		55	0.7	05	14 S	108 22 W	100.0	1.0	1.0
860818	04	14	05	06		02	4		64	1.1	05	20 S	107 00 W	100.0	3.0	3.0
860822	02	02	02	11		02	2		55	1.4	02	49 S	095 20 W	100.0	1.0	1.0
860908	03	06	04			3			38	0.9	08	17 S	087 52 W	100.0	1.0	1.0
860917			02			5			5	0.2	00	52 N	093 18 W	100.0	1.0	1.0
860917	06	02	05			4			55	7.3	01	24 N	092 48 W	1.0	465.0	395.0
860918	04	07	03			5			38	1.8	02	43 N	090 30 W	100.0	1.0	1.0
861012	03	06	03	12		5			05	5.1	02	15 N	095 02 W	100.0	1.0	1.0
861014	02	01	01			5			55	1.3	02	40 N	100 47 W	100.0	1.0	1.0
861026	04	04		03		2			38	0.1	06	30 N	141 53 W	100.0	1.0	1.0

Table 3. (continued)

SPECIES CODE: 71									
SPECIES: MINKE WHALE (B.ACUTOROSTRATA)									
DATE	SERIES	LEG	SIGHT	SUN POSITION	BEAUF.	DETECTED	PERP.	LATITUDE	LONGITUDE
YR/MODY			NUMBER	HORZ.	VERT.	NUMBER	BY	DIST. (KM)	DEG MIN DEG MIN
861204	03	01	13	07	03	2	05	0.1	27 41 N 117 55 W
861204			04	06	01	0	05	0.1	27 00 N 117 28 W

					PROPORTION (% OF SCHOOL)	MEAN SCHOOL SIZE EST
					BEST	LOW
					100.0	100.0
					100.0	100.0

Table 3. (continued)

SPECIES CODE: 72
 SPECIES: BRYDE'S WHALE
 (B. EDENI)

DATE YR/MODY	SERIES	LEG	SIGHT NUMBER	SUN POSITION HORZ.	BEAUF. VERT. NUMBER	DETECTED BY	PERP. DIST. (KM)	LATITUDE DEG MIN	LONGITUDE DEG MIN	PROPORTION (% OF SCHOOL)		MEAN SCHOOL SIZE EST	
										BEST	LOW	BEST	LOW
860815	03	08	02	11	01	6	61	0.3	02 41 S	117 26 W	100.0	1.0	1.0
860818	01	03	02	11	03	4	61	0.5	05 15 S	108 18 W	100.0	1.0	1.0
860915	08	04	05	12	12	5	63	0.5	00 22 N	096 33 W	14.5	17.0	15.0

Table 3. (continued)

SPECIES: UNIDENTIFIED DOLPHIN

SPECIES CODE: 77

DATE	SERIES	IEG	SIGHT NUMBER	SUN POSITION HORZ.	BEAUF. VERT.	DETECTED BY	PERP. DIST. (KM)	LATITUDE DEG MIN	LONGITUDE DEG MIN	PROPORTION (% OF SCHOOL)	MEAN SCHOOL SIZE EST BEST	MEAN SCHOOL SIZE EST LOW
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860801	03	01	09	12	4	64	0.1	25 46 N	118 03 W	100.0	10.0	4.0	
860803	02	02	09	02	2	05	0.6	19 10 N	121 25 W	100.0	1.0	1.0	
860803	05	04	06	12	12	05	7.4	18 28 N	121 33 W	100.0	20.0	12.0	
860806	04	03	02	12	12	56	1.5	08 09 N	123 46 W	90.0	10.0	10.0	
860806	04	02	02	06	01	3	0.5	01 43 S	128 11 W	100.0	1.0	1.0	
860810	02	02	04	12	12	3	05	02.2	01 49 S	128 30 W	100.0	1.0	1.0
860810	03	05	04	12	12	05	0.4	01 15 S	129 04 W	100.0	1.0	1.0	
860810	06	04	07	01	01	3	0.4	01 09 S	129 05 W	100.0	2.0	2.0	
860811	03	24	05	07	02	56	61	3.5	02 45 S	117 11 W	100.0	2.0	2.0
860815	05	02	04	09	12	63	0.9	04 07 S	113 35 W	100.0	7.0	5.0	
860816	03	18	02	06	02	4	63	0.9	02 55 S	095 01 W	100.0	8.0	6.0
860822	02	10	03	11	01	3	05	3.9	03 10 S	093 56 W	100.0	2.0	2.0
860822	03	28	05	06	03	3	0.1	03 28 S	083 41 W	100.0	1.0	1.0	
860826	01	02	01	2	61	0.7	03 13 S	082 56 W	100.0	0.0*	2.0		
860826	05	03	09	2	64	0.7	03 00 S	080 52 W	100.0	800.0	600.0		
860904	01	05	01	3	05	0.5	2.3	05 29 S	083 54 W	100.0	2.0	2.0	
860906	01	11	02	5	63	2.4	09 33 S	083 57 W	100.0	10.0	6.0		
860906	01	12	03	5	63	0.7	07 48 S	088 11 W	100.0	0.0*	2.0		
860908	03	18	05	4	63	0.2	05 51 S	089 34 W	100.0	1.0	1.0		
860909	01	03	01	3	38	3.6	09 29 S	089 33 W	100.0	2.0	2.0		
860909	01	04	02	3	38	3.1	05 47 S	089 33 W	100.0	80.0	50.0		
860909	02	10	04	3	55	3.7	05 13 S	089 55 W	100.0	20.0	15.0		
860913	03	02	02	03	55	0.8	03 05 S	099 26 W	100.0	6.0	4.0		
860914	01	01	01	3	55	1.7	00 04 S	099 37 W	100.0	2.0	2.0		
860914	02	02	04	01	38	0.3	00 13 N	099 31 W	100.0	12.0	10.0		
860915	04	03	04	5	55	1.9	00 14 S	097 07 W	100.0	2.0	2.0		
860916	02	05	02	4	61	0.2	00 15 S	095 18 W	100.0	2.0	1.0		
860917	05	01	04	4	05	0.5	01 20 N	092 53 W	100.0	1.0	1.0		
860920	01	14	01	3	64	0.4	05 46 N	083 03 W	100.0	2.0	2.0		
860921	02	02	02	1	55	1.0	08 02 N	079 30 W	100.0	3.0	3.0		
860921	02	03	02	1	64	0.9	08 03 N	079 30 W	100.0	2.0	2.0		
860921	03	04	05	1	64	0.7	08 21 N	079 31 W	100.0	18.0	15.0		

Table 3. (continued)

SPECIES: UNIDENTIFIED DOLPHIN

SPECIES CODE: 77

DATE YR/MODY	SERIES	LEG	SIGHT NUMBER	SUN POSITION HORZ.	BEAUF. VERT.	DETECTED BY	PERP. DIST. (KM)	LATITUDE DEG MIN	LONGITUDE DEG MIN	PROPORTION (% OF SCHOOL)		MEAN BEST	SCHOOL SIZE EST LOW
										EST	EST		
860921	03	05	06	1	3	64	0.0	08 26 N	079 30 W	100.0	0.0*	4.0	
860923	02	01	01	6	61	4.0	0.0	06 17 N	079 25 W	100.0	0.0*	2.0	
860924	02	06	02	5	64	0.1	0.1	00 19 S	081 45 W	100.0	1.0	1.0	
860925	01	07	01	5	64	0.3	0.3	01 00 S	082 02 W	100.0	8.0	6.0	
860925	08	01	05	4	55	0.2	0.2	00 57 S	082 37 W	100.0	0.0*	3.0	
860925	10	06	07	4	55	0.5	0.0	00 57 S	085 05 W	100.0	0.0*	1.0	
860926	03	02	03	5	63	5.5	0.0	00 43 S	085 03 W	100.0	1.0	1.0	
860926	03	07	04	4	63	0.7	0.7	08 37 N	079 29 W	100.0	20.0	18.0	
860927	05	05	03	4	55	2.1	0.4	08 35 N	079 29 W	100.0	2.0	2.0	
860929	01	04	02	3	64	5.9	0.6	06 12 N	080 06 W	100.0	0.0*	50.0	
861004	01	02	02	2	61	0.7	0.7	08 37 N	079 29 W	100.0	20.0	18.0	
861004	01	03	03	1	61	0.4	0.4	01 54 N	082 12 W	100.0	1.0	1.0	
861004	01	03	04	1	55	2.6	0.8	08 35 N	079 29 W	100.0	50.0	40.0	
861005	07	01	09	12	12	0.3	0.3	06 40 N	081 43 W	100.0	3.0	2.0	
861010	03	01	03	3	38	0.6	0.1	01 47 S	089 21 W	20.0	12.0	10.0	
861011	02	01	04	3	64	1.9	0.1	01 26 S	092 49 W	100.0	0.0*	4.0	
861011	03	02	07	3	55	0.8	0.1	01 26 S	093 00 W	100.0	12.0	12.0	
861011	03	03	10	3	64	1.7	0.1	01 22 S	093 14 W	100.0	6.0	6.0	
861011	05	01	12	5	38	0.1	01 13 S	093 29 W	100.0	1.0	1.0		
861011	05	08	14	12	64	0.3	0.2	02 35 N	104 39 W	100.0	0.0*	0.0*	
861015	01	05	01	6	64	0.0	0.0	05 20 N	124 51 W	100.0	2.0	2.0	
861021	01	01	01	5	05	0.0	0.0	05 23 N	125 05 W	100.0	1.0	1.0	
861021	01	08	02	6	05	0.0	0.0	05 30 N	125 35 W	100.0	0.0*	15.0	
861021	01	17	03	6	55	0.2	0.2	05 35 N	125 58 W	100.0	6.0	5.0	
861025	01	26	01	12	5	38	0.1	05 26 N	138 54 W	100.0	1.0	1.0	
861026	06	02	07	2	05	7.2	0.6	06 33 N	142 02 W	100.0	1.0	1.0	
861027	02	14	02	7	55	2.5	0.7	07 36 N	144 40 W	100.0	4.0	4.0	
861028	06	05	10	3	55	1.5	0.9	09 50 N	146 49 W	100.0	2.0	2.0	
861029	03	01	01	4	55	0.8	11 19 N	148 04 W	100.0	3.0	3.0		
861030	02	12	01	5	63	1.8	13 11 N	149 39 W	100.0	30.0	25.0		

Table 3. (continued)

SPECIES: UNIDENTIFIED DOLPHIN

SPECIES CODE: 77

DATE YR/MOD/Y	SERIES	LEG	SIGHT NUMBER	SUN POSITION HORZ.	BEAUF. VERT. NUMBER	DETECTED BY	PERP. DIST. (KM)	LATITUDE DEG MIN	LONGITUDE DEG MIN	PROPORTION (% OF SCHOOL)	MEAN SCHOOL SIZE EST	
											BEST	LOW
861031	01	07	01	06	02	02	05	1.0	15 10 N	151 31 W	100.0	0.0*
861101								0.0	18 31 N	154 17 W	100.0	75.0
861113	02	06	01	11	02	3	63	2.1	10 40 N	139 22 W	100.0	50.0
861113	09	02	07	03	02	4	64	1.6	09 39 N	138 41 W	100.0	10.0
861117	03	02	05	02	01	3	38	1.8	13 27 N	128 15 W	100.0	8.0
861121	03	02	01	01	01	5	38	0.1	07 44 N	116 12 W	100.0	0.0*
861121	05	07	02	04	02	3	55	1.8	07 27 N	115 25 W	100.0	20.0
861126	01	11	02	06	02	4	38	0.1	07 16 N	111 30 W	100.0	1.0
861130	01	02	01	02	03	2	64	0.7	15 17 N	115 13 W	100.0	1.0
861201	02	28	02	08	01	5	38	0.0	18 38 N	112 14 W	100.0	0.0*
861203	04	01	04	06	01	1	38	7.7	24 20 N	115 53 W	100.0	3.0
861203	04	08	06	08	01	0	55	0.4	24 39 N	116 03 W	100.0	1.0
											3.0	3.0

Table 3. (continued)

SPECIES: UNIDENTIFIED SMALL WHALE

SPECIES CODE: 78

DATE YR/MODY	SERIES	LEG	SIGHT NUMBER	SUN POSITION HORZ.	DETECTED VERT. NUMBER	PERP. DIST. (KM)	LATITUDE DEG MIN	LONGITUDE DEG MIN	PROPORTION (% OF SCHOOL)		MEAN SCHOOL SIZE EST BEST	LOW
									EST	EST		
860810	04	04	05	01	01	3	64	0.4	01	48	S	128 48 W
860825	04	01	03	4			38	2.3	03	37	S	085 16 W
860826	08	01	12	2	2		38	1.0	03	07	S	082 31 W
860826	12	03	16	07	02	2	38	0.0	03	05	S	082 11 W
860908	01	06	01				64	0.0	09	04	S	087 19 W
860909	01	08	03				61	0.0	05	34	S	089 42 W
860923	03	04	02				38	4.5	06	09	N	079 28 W
860929	02	04	03				64	1.0	06	29	N	080 00 W
861011	03	02	08				38	1.5	01	26	S	092 56 W
861024	03	05	01	08	01	2	63	0.0	04	57	N	135 01 W
861026	05	02	05				63	0.9	06	32	N	141 58 W
861113	04	02	03	11	01	3	38	0.6	10	23	N	139 13 W
861113	05	01	04				38	0.5	10	21	N	139 11 W
861117	02	10	03				38	5.9	13	28	N	128 23 W
861123	01	04	01				63	0.7	05	23	N	110 48 W
861124	01	20	01	04	12	5	05	3.8	04	42	N	107 48 W

Table 3. (continued)

SPECIES: UNIDENTIFIED LARGE WHALE

SPECIES CODE: 79.

DATE YR/MODY	SERIES	LEG	SIGHT	SUN POSITION	DETECTED	PERP.	LATITUDE	LONGITUDE	PROPORTION	MEAN	SCHOOL SIZE	EST
			NUMBER	HORZ.	VERT.	NUMBER	BY	DIST. (KM)	DEG MIN	DEG MIN	(% OF SCHOOL)	BEST
860914	04	07	08	12	12	4	05	2.9	00 27 N	099 12 W	100.0	1.0
861011	05	01	13		3		38	0.8	01 22 S	093 14 W	100.0	1.0
861022	01	04	01		4		64	8.5	05 48 N	128 08 W	100.0	1.0
861204	05	04	10	08	02	1	38	0.1	27 25 N	117 51 W	100.0	1.0

Table 3. (continued)

SPECIES: UNIDENTIFIED CETACEAN

SPECIES CODE: 96

DATE YR/MODY	SERIES	LEG	SIGHT NUMBER	SUN POSITION HORZ.	DETECTED BY	PERP. DIST. (KM)	LATITUDE DEG MIN	LONGITUDE DEG MIN	PROPORTION (% OF SCHOOL)			MEAN SCHOOL SIZE EST
									BEST	LOW		
860802	03	05	02	02	1	61	3.1	21 24 N	120 17 W	100.0	2.0	2.0
860809	03	07	03	02	3	05	0.0	01 02 S	125 53 W	100.0	2.0	2.0
860810	03	01	03			63	0.0	01 46 S	128 15 W	100.0	0.0*	2.0
860822	03	10	04	12	12	05	0.0	03 02 S	094 38 W	100.0	1.0	1.0
860905	03	02	03			64	0.4	06 10 S	082 43 W	100.0	10.0	0.0*
860905	04	06	04			64	0.1	06 26 S	082 46 W	100.0	1.0	1.0
860907	01	26	02			55	0.4	11 28 S	085 52 W	100.0	1.0	1.0
860909	03	03	06	12	12	64	1.5	05 01 S	090 00 W	100.0	2.0	2.0
861009	02	03	01			61	0.3	00 18 S	087 32 W	100.0	2.0	2.0
861010	06	01	08			64	1.9	01 38 S	090 10 W	100.0	1.0	1.0
861021	02	01	04			61	0.3	05 28 N	125 35 W	100.0	3.0	3.0
861115	04	05	03			38	1.9	12 22 N	132 40 W	100.0	1.0	1.0
861203	01	04	01	05	03	0	0.3	23 55 N	115 36 W	100.0	1.0	1.0
861204	04	01	05	06	01	0	0.2	27 02 N	117 29 W	100.0	1.0	1.0
861204	04	02	06	06	01	0	0.0	27 07 N	117 31 W	100.0	2.0	2.0

Table 3. (continued)

SPECIES: UNIDENTIFIED WHALE

SPECIES CODE: 98

DATE YR/MODY	SERIES	LEG	SIGHT NUMBER	SUN POSITION	BEAUF. VERT.	DETECTED BY	PERP. DIST. (KM)	LATITUDE DEG MIN	LONGITUDE DEG MIN	PROPORTION (% OF SCHOOL)		MEAN SCHOOL SIZE EST		
										LOW	HIGH			
860808	01	08	01	04	02	01	11	61	01 46 N	125 20 W	100.0	1.0		
860808	03	02	02	04	01	01	02	64	00 30 N	125 16 W	100.0	2.0		
860817	01	06	01	11	02	01	11	38	04 38 S	111 17 W	100.0	1.0		
860822	01	04	01	11	02	01	11	38	02 48 S	095 25 W	100.0	1.0		
860907	01	04	01	06	02	01	06	64	2.4	12 24 S	085 12 W	100.0	1.0	
860914	03	02	06	06	02	01	06	4	2.6	00 16 N	099 25 W	100.0	1.0	
860914	04	05	07	01	01	01	06	38	1.2	00 16 N	100.0	1.0		
860917	07	01	06	06	01	01	06	63	0.4	00 23 N	099 17 W	100.0	1.0	
860917	07	02	07	07	01	01	06	63	3.6	01 16 N	092 41 W	100.0	0.0*	
860920	02	02	03	01	01	01	01	55	3.0	01 18 N	092 40 W	100.0	1.0	
860921	02	04	04	04	02	01	01	64	3.1	08 07 N	079 31 W	100.0	1.0	
860929	04	02	04	02	02	01	01	05	6.8	06 38 N	079 54 W	100.0	3.0	
861005	09	03	10	12	02	01	12	63	3.6	06 50 N	080 39 W	100.0	1.0	
861005	02	01	03	02	04	01	01	55	2.3	06 50 N	080 39 W	100.0	3.0	
861005	03	02	04	07	01	01	03	64	2.6	06 44 N	081 06 W	100.0	1.0	
861005	09	03	10	12	02	01	12	61	4.7	06 36 N	082 07 W	100.0	1.0	
861006	01	04	01	01	01	01	01	38	8.2	06 14 N	083 43 W	100.0	4.0	
861008	01	02	01	01	02	01	01	64	3.0	03 35 N	087 09 W	100.0	1.0	
861008	01	06	02	09	03	03	03	38	1.5	03 27 N	087 09 W	100.0	1.0	
861010	08	02	13	12	12	12	12	38	0.0	01 34 S	090 44 W	100.0	1.0	
861012	03	23	02	12	12	12	12	55	0.1	02 01 N	094 56 W	100.0	1.0	
861017	01	28	02	11	12	12	12	02	5	0.2	02 24 N	113 15 W	100.0	1.0
861024	03	23	02	12	12	12	12	64	1.3	04 37 N	135 56 W	100.0	1.0	
861118	01	10	01	12	12	12	12	38	2.2	12 18 N	125 58 W	1.0	322.0	
861130	05	05	06	06	05	06	06	61	0.5	16 03 N	114 05 W	100.0	1.0	
861201	02	33	03	03	03	03	03	63	1.1	18 51 N	112 17 W	100.0	1.0	
861202	05	01	04	08	01	01	03	64	1.8	21 33 N	114 12 W	100.0	1.0	
861204	05	01	09	08	01	01	01	38	0.3	27 17 N	117 45 W	100.0	1.0	

*denotes that no estimate was made.

Table 4. Marine mammal school size estimates for each observer, classified by species codes, for all sightings encountered in the eastern tropical Pacific during July 29 through December 6, 1986.

DATE	SIGHT NO.	OBS 5		OBS 38		OBS 55		OBS 61		OBS 63		OBS 64		
		BEST EST.	PCT EST.											
SPECIES 2	861116	01		155	10			800	4			295	5	
	861117	06		110	75			100	97			80	99	
	861121	01		80	99	175	99	200	50	90	85	265	85	
	861124	02	145	40	125	35	150	60			100	100	115	
	861126	03			200	85	275	85			160	100	100	
	861127	01	260	100	150	100	225	100	215	100				
	861127	02			150	100	215	100						
	861127	03	165	25	135	35	100	30	150	40	200	20		
	861128	01	70	35	100	70	100	40	175	5			66	
	861130	05	135	100	40	100	50	100	45	100	35	100	15	
SPECIES 3	861201	01												
	860805	01	60	25	75	10								
	860910	01			12	10								
	861126	03			200	15	275	15						
SPECIES 5	860825	02	1000	100	75	100	900	100	700	100	350	100	650	100
	860826	02	45	100	75	100	30	100			40	100	24	100
	860826	03		25	100		15	100	50	100		100	65	100
	860826	08	225	100	200	100	300	100	15	100				
	860826	11			800	100	500	100	1100	100	550	100	275	100
	860905	01	95	100	110	100	150	100			60	100	40	100
	860914	03		87	98		52	96						
	860916	01							500	100			110	100
	860916	03	400	100			300	100			100	100		
	860925	02	650	100	500	100	450	100	700	100				
SPECIES 6	860925	03	900	100	1300	100	775	100	1750	100	450	100	850	100
	860925	04					450	100					325	100
	860925	06					400	100					250	100
	861010	01					110	100					75	100
	861010	04	1700	99	1500	99			225	100			800	99

Table 4. (continued)

DATE	SIGHT NO.	OBS 5		OBS 38		OBS 55		OBS 61		OBS 63		OBS 64		
		BEST EST.	PCT EST.											
SPECIES	5													
	861010	11	510	100	700	100	450	100	1400	100	700	100	410	100
	861010	14	460	100	500	100			225	100			60	100
	861011	01	60	100			110	100	200	100			12	100
	861011	03					10	100	30	100			375	100
	861117	07	50	100			250	100			500	100	60	100
	861202	01	135	100			400	100	170	100			1150	100
	861202	02	350	100			400	100	475	100	750	100		
	861202	03					160	100	225	100			60	100
	861202	05	165	100									35	100
	861202	06											140	100
	861203	02	130	100	275	100			325	100	450	100	325	100
	861203	03	160	100	275	100			375	100	525	100	225	100
	861204	08			275	45			370	60	250	50	215	55
	861204	12	275	95					275	90			120	95
	861204	14			550	65			300	75	425	60	425	85
SPECIES	6													
	861004	01			20	100			20	100	8	100	12	100
	861004	05			70	100			70	100	60	100		
	861004	06			250	100							68	100
SPECIES	10													
	860804	01			7	100								
	860806	02			10	10								
	860815	01	600	4	900	9	400	9						
	861118	01			301	99			600	99	161	99	66	85
	861128	01	70	65	100	70	150	60	175	95			18	100
	861129	01	35	100									50	100
SPECIES	11													
	860803	01	100	35	90	33	175	60	55	20			55	40
	860803	03	60	100	90	100	80	100	60	100			320	100
	860810	06			75	100	175	100					60	100
	860816	01			40	100	40	100					45	100

Table 4. (continued)

SPECIES	DATE	SIGHT NO.	OBS	5	OBS	38	OBS	55	OBS	61	OBS	63	OBS	64
			BEST	PCT										
			EST.											
11	860817	03	200	75	200	70	250	30	350	65	60	10	75	70
	860908	03	225	85	90	80	250	9	1000	1			171	9
	860917	05					300	75	350	25	600	40		
	860917	09					90	80	400	60				
	860917	10	200	80	90	30	250	50						
	861012	01					90	30						
	861014	02					55	100						
	861017	04	185	40	75	15			325	60				
	861019	01	95	37	110	40	190	25		120	35			
	861028	04	225	15	275	60	425	75	900	80			192	20
	861113	06					60	85	130	80	300	90		
	861115	01					80	35	80	40			310	96
	861115	02					150	90			800	95		
	861115	04					155	90			800	96		
	861116	01	40	100					35	100			310	96
	861116	04					115	20			275	10		
	861117	02					110	25			100	3		
	861117	04					125	65	150	40	200	50		
	861117	06					135	65			200	80		
	861124	02	145	60										
	861127	03	165	75										
13	860802	03					60	83			60	90		
	860816	03	1	100				8	100				3	100
	860818	03	20	100	10	100		12	100					
	860818	04	50	100				50	100	40	100		16	100
	860821	01						8	100	10	100			
	860825	01	40	100				60	100			50	100	16
	860826	07					25	100				30	100	16
	860913	05	150	100					15	100	30	100		20
	860913	06	40	100					30	100				100
	860914	10	35	100						75	100			22
	860915	01	45	100										100

Table 4. (continued)

SIGHT NO.	DATE	OBS											
		BEST	PCT										
SPECIES	13												
860915	02	135	100	225	100	200	100	200	100	130	100	56	100
860915	06	20	100	400	100	45	94	150	98	25	100	130	100
860915	07	225	100	150	100	30	100	100	100	115	100	220	100
860917	03	125	98	100	100	12	100	200	100	115	100	80	100
860917	08	100	100	75	100	50	100	50	100	80	100	65	100
860918	02	35	100	30	100	12	100	200	100	140	100	50	100
860918	05	100	100	35	100	50	100	30	100	55	100	55	100
860919	01	110	100	60	100	60	100	40	100	40	100	22	100
860920	04	75	100	50	100	60	100	60	100	60	100	75	100
860923	04	85	100	45	100	60	100	40	100	40	100	65	100
860923	07	38	100	75	100	50	100	60	100	60	100	50	100
860927	02	85	100	45	100	60	100	50	100	40	100	55	100
861009	02	185	100	45	100	325	100	50	100	50	100	90	100
861009	03	1700	1	300	100	1	100	500	100	800	1	1400	2
861009	04	115	70	1500	1	2300	1	2300	1	800	1	1400	2
861009	06	45	100	70	100	70	100	60	100	40	100	68	100
861010	04	65	100	30	100	40	100	40	100	40	100	26	100
861010	06	55	100	55	100	50	100	80	100	50	100	32	100
861011	11	30	100	1	100	1	100	50	100	50	100	1	100
861011	16	65	100	85	100	85	100	50	100	50	100	72	100
861021	07	30	100	40	100	40	100	40	100	40	100	74	100
861022	02	55	100	50	100	50	100	80	100	35	100	56	100
861026	01	1	100	35	100	1	100	50	100	50	100	108	100
861027	03	100	100	35	100	80	100	30	100	30	100	72	100
861028	01	80	100	115	80	100	100	275	90	120	15	64	100
861028	03	100	100	50	100	70	100	250	100	220	100	72	100
861117	04	60	100	115	80	100	100	115	100	80	100	65	100
861124	03	80	100	50	100	80	100	80	100	40	100	50	100
861125	01	65	100	55	100	50	100	80	100	50	100	675	100
861125	03	80	100	60	100	50	100	115	100	80	100	675	100
861129	02	55	100	55	100	50	100	80	100	40	100	675	100
861204	01	35	100	550	100	35	100	550	100	1100	100	675	100

Table 4. (continued)

DATE	SIGHT NO.	OBS 5			OBS 38			OBS 55			OBS 61			OBS 63			OBS 64		
		BEST EST.	PCT EST.																
SPECIES 13	861204	08		275	5	275	.55	370	40	250	50	120	5	215	45				
	861204	12		275		550	35	300	25	425	40			425	15				
	861204	14																	
SPECIES 15	860803	04		2	100	1	100							78	20				
	860928	03																	
	860929	06		31	58														
	861005	08		4	100														
SPECIES 18	860802	03						60	17					60	10				
	860811	02												1	100				
	860815	01		600	1	900	1	400	1							10	10		
	860817	02				15	20	18	33					25	100	8	100		
	860826	14				25	100												
	860908	02						55	90										
	860909	05		6	15														
	860913	04						21	12										
	860916	01		87	2			4	50	52	4				4	50			
	860920	02							4	50	4	50				15	100		
	860921	01						15	100										
	860921	07						8	100										
	860923	06		176	5	200	5	300	5	550	1			200	10	16	30		
	860927	01		20	25	22	35			15	33					78	5		
	860928	03																	
	860929	06		31	34														
	861004	07		163	100			16	50	12	50			20	20	18	30		
	861005	01						30	33	20	25					20	40		
	861005	07						25	20	30	40					68	43		
	861010	02														135	100		
	861010	06		115	20														
	861010	07		115	100			125	100	150	100								
	861010	10						30	50					24	60	13	33		

Table 4. (continued)

DATE	SIGHT NO.	OBS 5			OBS 38			OBS 55			OBS 61			OBS 63			OBS 64		
		BEST	PCT	EST.	BEST	PCT	EST.	BEST	PCT	EST.	BEST	PCT	EST.	BEST	PCT	EST.	BEST	PCT	EST.
SPECIES 18	861116	03	10	20	250	100	80	20	30	130	100	195	100						
	861130	03	400	100															
SPECIES 21	860809	02	15	100	15	100	5	100	20	100	15	100	8	100					
	860809	04	10	100	7	100	3	100	5	100	5	100	4	100					
SPECIES 22	860905	02			5	100													
	860908	02			55	10													
SPECIES 23	860908	06	6	100	7	100	7	100	7	100	3	100	6	100					
	860909	05	6	85															
SPECIES 24	860913	03																	
	860913	04			21	12													
SPECIES 25	860924	01			7	100													
	860926	07	1	100															
SPECIES 26	860927	01	20	75	22	65													
	860928	03																	
SPECIES 27	861010	09	3	100															
	861026	02	6	100	4	100	10	100	10	100	3	100	3	100					
SPECIES 28	861026	06	13	100	10	100	7	100	7	100	22	100	4	100					
	861130	04	17	100	12	100	27	100	27	100	10	100	5	100					
SPECIES 29	860810	01	325	100	250	100	450	100	600	100	600	100	380	100	300	100			
	860811	01	30	100	15	100			20	100	20	100	12	100	6	100			
SPECIES 30	861021	05	250	100	600	100			750	100									
	860923	06	176	95	200	95	300	95	550	99	550	99	200	90					
SPECIES 31	860923																		
	860913	04																	
SPECIES 32	861113	02	16	100															
	861113	02																	

Table 4. (continued)

DATE	SIGHT NO.	OBS											
		BEST	PCT										
SPECIES		EST.											
	34												
	860815	03											
	860817	02											
	860914	09											
	860915	05											
	860917	03											
	860926	01											
	860928	05											
	861005	01											
	861005	05											
	861005	07											
	861010	02											
	861010	03											
	861010	06											
	861010	10											
	861011	06											
	861011	07											
	861116	03											
	861126	01											
	861127	04											
	37												
	860907	04											
	860913	01											
	860926	02											
	861113	05											
	46												
	860826	04											
	860914	02											
	860918	04											
	860920	02											
	860920	05											
	860923	05											
	860926	06											

Table 4. (continued)

Table 4. (continued)

DATE	SIGHT NO.	OBS 5		OBS 38		OBS 55		OBS 61		OBS 63		OBS 64		
		BEST EST.	PCT EST.											
SPECIES 51	860923	03		2	100	2	100	2	100	2	100			
SPECIES 61	860811	03		2	100					2	100			
	860928	01		2	100									
	861010	05				1	100							
	861117	01				1	100			1	100			
SPECIES 70	860815	05		3	100	13	100	13	100	8	100	1	100	
	860818	01				1	100	2	100			2	100	
	860818	05		3	100	4	100			4	100		1	100
	860822	02				1	100	1	100					
	860908	04				1	100							
	860917	05		351	1	551	1	250	1	1000	1		171	1
	860918	03				1	100							
	861012	03		1	100									
	861014	01				1	100	1	100					
	861026	03		1	100	1	100							
SPECIES 71	861204	04		1	100	1	100	1	100					
SPECIES 72	860815	02		1	100	1	100			1	100	1	100	
	860818	02		1	100					1	100			
	860915	05		14	14	22	10	14	14			18	20	
SPECIES 77	860801	01								10	100			
	860803	02				1	100							
	860803	06				20	100			10	90			
	860806	02										2	100	
	860810	02										1	100	

Table 4. (continued)

SPECIES	DATE	SIGHT NO.		OBS 5		OBS 38		OBS 55		OBS 61		OBS 63		OBS 64	
		BEST EST.	PCT												
77	860810	04		1	100					1	100				
	860810	07		1	100					2	100				
	860811	05													
	860815	04													
	860816	02													
	860822	03		8	100										
	860822	05													
	860826	01													
	860904	01		800	100			2	100						
	860906	02													
	860906	03													
	860909	01						1	100						
	860909	02						2	100						
	860909	04													
	860913	02													
	860914	01													
	860914	04													
	860915	04													
	860916	02													
	860917	04		1	100										
	860920	01													
	860921	02													
	860921	03													
	860921	05		18	100										
	860924	02													
	860925	01													
	860925	07													
	860926	04													
	860927	03													
	861004	02													
	861004	03													
	861004	04													
	861005	09													
	861010	03		12	20										

Table 4. (continued)

DATE	SIGHT NO.	BEST		PCT		BEST		PCT		BEST		PCT		BEST		PCT	
		EST.	PCT	EST.	PCT	EST.	PCT	EST.	PCT	EST.	PCT	EST.	PCT	EST.	PCT	EST.	PCT
SPECIES	77	861011	07													12	15
		861011	10														
		861011	12														
		861011	14														
		861021	01														
		861021	02														
		861021	06														
		861025	01														
		861026	07														
		861026	07														
		861027	02														
		861028	05														
		861029	01														
		861030	01														
		861113	01														
		861117	05														
		861121	01														
		861121	02														
		861126	02														
		861201	02														
		861203	06														
SPECIES	78	860810	05													2	100
		860825	03														
		860826	12														
		860826	16														
		860908	01													2	100
		860909	03														
		860923	02														
		860929	03														
		861011	08													1	100
		861024	01														
		861026	05														
		861113	03														

136

Table 4. (continued)

Table 4: (continued)

Table 5. Summary of marine mammal sightings encountered in the eastern tropical Pacific during July 29 through December 6, 1986.

Species Name (Scientific Name)	Species Code	Sightings Total	Sightings Pure	Sightings Mixed	Low / (n)	High / (n)	Estimated-Mean-School-Size Best / (n)
Offshore Spotted Dolphin (<i>Stenella attenuata</i>)	2	47	23	24	91.72(47)	128.12(47)	107.24(47)
Spinner Dolphin (<i>Stenella longirostris</i>)	3	3	0	3	12.47(3)	17.88(3)	14.53(3)
Common Dolphin (<i>Delphinus delphis</i>)	5	31	26	5	295.75(31)	399.66(31)	341.92(31)
Coastal Spotted Dolphin (<i>S.A. graffmani</i>)	6	3	3	0	70.00(3)	98.67(3)	80.33(3)
Eastern Spinner Dolphin (<i>Stenella longirostris</i>)	10	6	2	4	76.71(6)	120.33(5)	85.94(6)
Whitabellied Spinner Dolphin (<i>Stenella longirostris</i>)	11	25	6	19	96.19(25)	134.89(25)	111.62(25)
Striped Dolphin (<i>S. coeruleoalba</i>)	13	50	42	8	68.62(50)	98.47(48)	81.69(48)
Rough-Toothed Dolphin (<i>Steno bredanensis</i>)	15	4	2	2	8.07(4)	10.73(4)	9.39(4)
Bottlenosed Dolphin (<i>Tursiops truncatus</i>)	18	27	7	20	23.12(27)	31.74(26)	27.86(26)
Risso's Dolphin (<i>Grampus griseus</i>)	21	19	12	7	8.82(19)	11.21(18)	9.42(18)
Fraser's Dolphin (<i>Lagenodelphis hosei</i>)	26	4	4	0	291.00(4)	468.50(4)	364.75(4)
Unidentified Dolphin	77	74	70	4	14.68(73)	30.39(53)	21.29(60)

Table 5. (continued)

Species Name (Scientific Name)	Species Code	Sightings Total	Sightings Pure	Sightings Mixed	Estimated-Mean-School-Size Low / (n)	Estimated-Mean-School-Size High / (n)	Estimated-Mean-School-Size Best / (n)
Melon-Headed Whale (<i>Peponocephala electra</i>)	31	1	0	1	188.02(1)	235.42(1)	206.98(1)
False Killer Whale (<i>Pseudorca Crassidens</i>)	33	2	1	1	11.58(2)	16.88(2)	13.98(2)
Pilot Whale (<i>Globicephala sp.</i>)	34	21	9	12	8.55(21)	12.36(20)	9.61(21)
Killer Whale (<i>Orcinus orca</i>)	37	4	4	0	4.50(4)	6.33(3)	4.75(4)
Sperm Whale (<i>Physeter macrocephalus</i>)	46	19	17	2	3.96(19)	4.99(19)	4.18(19)
Pygmy Sperm Whale (<i>Kogia breviceps</i>)	47	2	2	0	1.00(2)	1.00(2)	1.00(2)
Beaked Whale (<i>Ziphnid</i>)	49	12	12	0	1.75(12)	1.75(12)	1.75(12)
Unid. Mesoplodont (<i>Mesoplodon sp.</i>)	51	4	4	0	2.00(4)	2.50(4)	2.25(4)
Cuvier's Beaked Whale (<i>Ziphius cavirostris</i>)	61	5	5	0	1.60(5)	1.60(5)	1.60(5)
Rorqual (<i>Balaenoptera sp.</i>)	70	11	10	1	2.09(11)	2.50(11)	2.24(11)
Minke Whale (<i>B. acutorostrata</i>)	71	2	2	0	1.00(2)	1.00(2)	1.00(2)
Bryde's Whale (<i>B. edeni</i>)	72	3	2	1	1.39(3)	1.63(3)	1.49(3)
Unidentified Small Whale	78	16	16	0	1.87(16)	2.71(14)	2.25(16)
Unidentified Large Whale	79	4	4	0	1.00(4)	1.25(4)	1.00(4)
Unidentified Cetacean	96	15	15	0	1.57(14)	1.69(13)	2.14(14)
Unidentified Whale	98	28	27	1	1.87(28)	2.50(26)	2.09(27)

Table 6. Summary of distance searched, large dolphin schools detected, and rates of encountering dolphins by observers aboard the McArthur in the eastern tropical Pacific during July 29 through December 6, 1986.

	Distance Searched (km)	Percent km Searched	Number Schools Detected	Percent All Schools Detected	Detection Rate (Schools/ 1000 km)	S.E. Detection Rate	Number Days Searched
All Data							
Northern	12172	100	147	100	12.07	1.55	90
Inshore	678	6	13	9	19.18	10.05	5
Middle	1843	15	31	21	16.82	5.60	19
West	2570	21	34	23	13.23	2.28	20
South	3131	26	28	18	8.94	1.80	23
	3950	32	41	28	10.38	2.61	30
Sea State Conditions							
Calm	1265	10	31	21	24.51	5.58	27
Rough	10907	90	116	79	10.64	1.28	85
Visibility Conditions							
Good	11257	92	140	95	12.44	1.59	90
Poor	914	8	7	5	7.66	3.61	51
Observers							
5	6164	51	19	13	3.08	0.88	89
38	5984	49	40	27	6.68	1.20	89
55	5971	49	21	14	3.52	1.02	88
61	6160	51	28	19	4.55	0.99	90
63	6076	50	12	8	1.98	0.61	88
64	6031	50	27	18	4.48	1.01	90
Observer Teams²							
1	6131	51	57	39	9.30	1.50	89
2	5951	49	90	61	15.12	2.37	89

¹Day included in tally if searching effort for the variable occurred during any part of the day.
²89 km occurred when either both or no team leaders were on duty and is not used for team analysis.

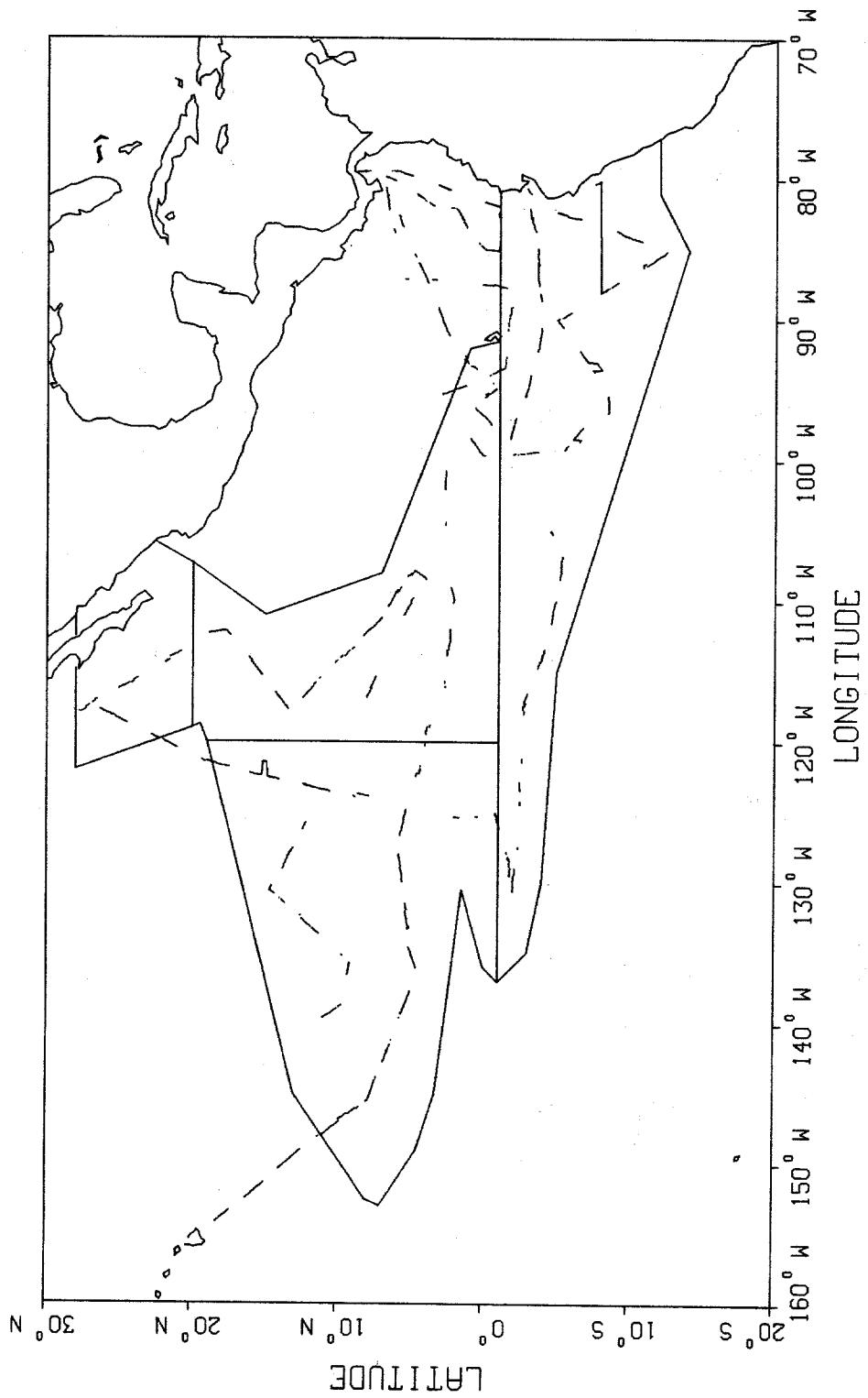


Figure 1. Tracklines surveyed from the R/V McArthur in the eastern tropical Pacific during July 29 through December 6, 1986.

CRUISE #	YEAR	MONTH	DAY	RESEARCH SHIP MARINE MAMMAL DAILY EFFORT RECORD			
				1	2	3	4
1				1	1	1	1
2				1	1	1	1
3				1	1	1	1
4				1	1	1	1
5				1	1	1	1
6				1	1	1	1
7				1	1	1	1
8				1	1	1	1

<u>ENDING CODES</u>
1 = COURSE CHANGE
2 = SPEED CHANGE
4 = EFFORT TERMINATED
5 = LEG ENDS TO RECORD
6 = POSITION IN FOLLOWING LEG
8 = LEG ENDS DUE TO CHANGE IN ENVIRONMENTAL CONDITIONS

Figure 2. Research ship marine mammal daily effort record.

CRUISE #	DATE			SIGHT #	SERIES #	LEG #	CARD #		
	YEAR	MONTH	DAY						
	1	4	6	8	10	12	14	16	0 1

**RESEARCH SHIP
MARINE MAMMAL
SIGHTING RECORD**

TIME	SIGHTING CUE			ENVIR. COND. AT CUE			POSITION AT TIME OF CUE			OBSERVER POSITIONS									
	BEARING FROM SHIP	DISTANCE nm & 10ths	34° 10ths	SURF TEMP °F & 10ths	HORZ SUN	VERT SUN	LATITUDE	N/S	LONGITUDE	E/W	SIGHTED TIME M.M.	LEFT N BIND	RIGHT N BIND	REC DETECTED BY					
18	22	23	24	27	30	31	34	36	38	42	43	48	49	50	54	55	57	59	61

OBSERVER 1

OBS. CODE	SCHOOL SIZE ESTIMATE			CARD #	SPECIES PROPORTIONS							
	BEST	HIGH	LOW		SPECIES 1 %	SP 1 CODE	SPECIES 2 %	SP 2 CODE	SPECIES 3 %	SP 3 CODE	SPECIES 4 %	SP 4 CODE
				0 2								
S P 1				S P 2				S P 3				S P 4

OBSERVER 2

OBS. CODE	SCHOOL SIZE ESTIMATE			SPECIES 1 %	SPECIES PROPORTIONS							
	BEST	HIGH	LOW		SP 1 CODE	SPECIES 2 %	SP 2 CODE	SPECIES 3 %	SP 3 CODE	SPECIES 4 %	SP 4 CODE	
	38	40	44	48	52	55	57	60	62	65	67	70
S P 1				S P 2				S P 3				S P 4

OBSERVER 3

OBS. CODE	SCHOOL SIZE ESTIMATE			SPECIES 1 %	SPECIES PROPORTIONS									
	BEST	CARD #	HIGH	LOW	SP 1 CODE	SPECIES 2 %	SP 2 CODE	SPECIES 3 %	SP 3 CODE	SPECIES 4 %	SP 4 CODE			
	72	74	77	16	18	22	26	29	31	34	36	39	41	44
S P 1				S P 2				S P 3				S P 4		

OBSERVER 4

OBS. CODE	SCHOOL SIZE ESTIMATE			SPECIES 1 %	SPECIES PROPORTIONS									
	BEST	HIGH	LOW		SP 1 CODE	SPECIES 2 %	SP 2 CODE	SPECIES 3 %	SP 3 CODE	SPECIES 4 %	CARD #	SP 4 CODE		
	46	48	52	56	60	63	65	68	70	73	75	77	16	18
S P 1				S P 2				S P 3				S P 4		

OBSERVER 5

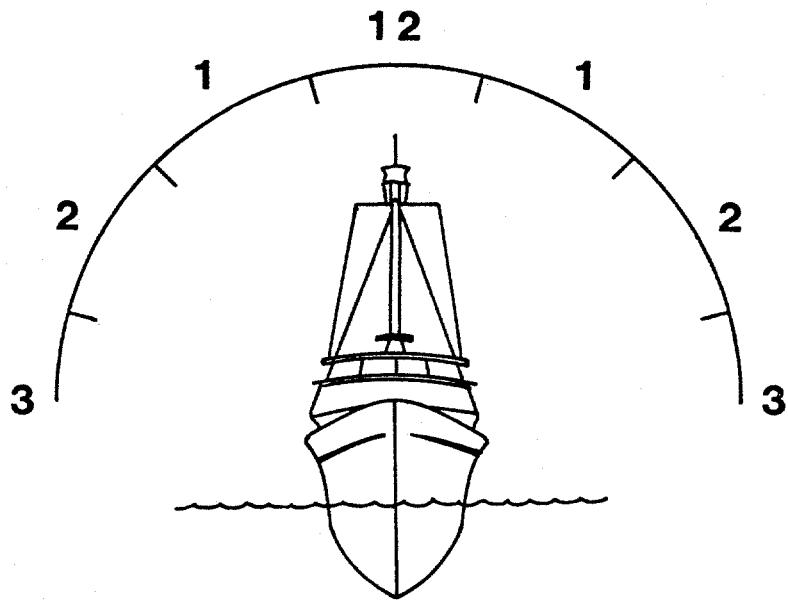
OBS. CODE	SCHOOL SIZE ESTIMATE			SPECIES 1 %	SPECIES PROPORTIONS							
	BEST	HIGH	LOW		SP 1 CODE	SPECIES 2 %	SP 2 CODE	SPECIES 3 %	SP 3 CODE	SPECIES 4 %	SP 4 CODE	
	20	22	26	30	34	37	39	42	44	47	49	52
S P 1				S P 2				S P 3				S P 4

OBSERVER 6

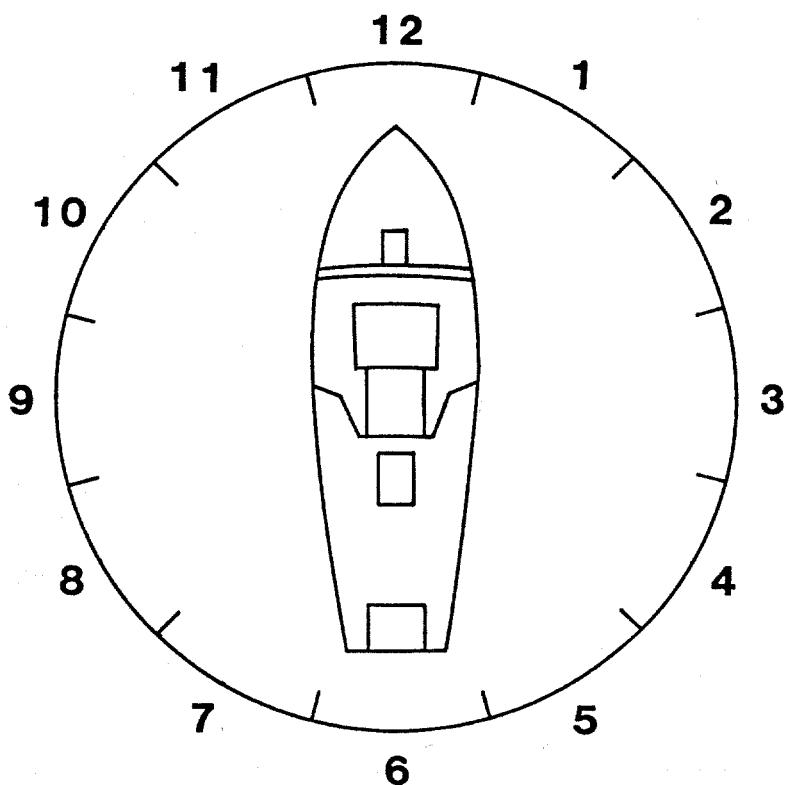
OBS. CODE	SCHOOL SIZE ESTIMATE			SPECIES 1 %	SPECIES PROPORTIONS								
	BEST	HIGH	LOW		SP 1 CODE	SPECIES 2 %	SP 2 CODE	CARD #	SPECIES 3 %	SP 3 CODE	SPECIES 4 %	SP 4 CODE	
	54	56	60	64	68	71	73	76	16	18	21	23	26
S P 1				S P 2				S P 3				S P 4	

RC 1	RC 2	RC 3	RC 4	RC 5	RC 6
28	29	30	31	32	33

Figure 3. Research ship marine mammal sighting record.



VERTICAL SUN POSITION



HORIZONTAL SUN POSITION

Figure 4. Vertical and horizontal sun position categories.

CRUISE #	YEAR	DATE MONTH	DAY	SIGHT #	SERIES #	LEG #	OBS. CODE
1	4	6	8	10	12	14	16

SIGHTING SUMMARY

LIST ALL DIAGNOSTIC FEATURES OBSERVED
(INCLUDING ESTIMATED BODY LENGTH)

SKETCH FEATURES OF ANIMALS SIGHTED							

BEHAVIOR – (DESCRIBE AGGREGATION, MOVEMENT, BOW AND STERN RIDING, BLOWS, ETC.)

ASSOCIATED ANIMALS – (INCLUDE NUMBER AND SPECIES OF BIRDS)

PHOTOS: ROLL # _____

FRAME(S): # _____

TOTAL TIME OF OBSERVATION	ENVIR. COND. (RAIN, OVERCAST, FOG, CHOPPY)	CLOSEST DISTANCE OF OBSERVATION
AMT. OF TIME AT CLOSEST DISTANCE	TAGS ASSOCIATED WITH SIGHTING	METHOD OF OBSERVATION (EYE, 7x, 10x, 25x)

Figure 5. Research ship marine mammal sighting record continuation sheet.

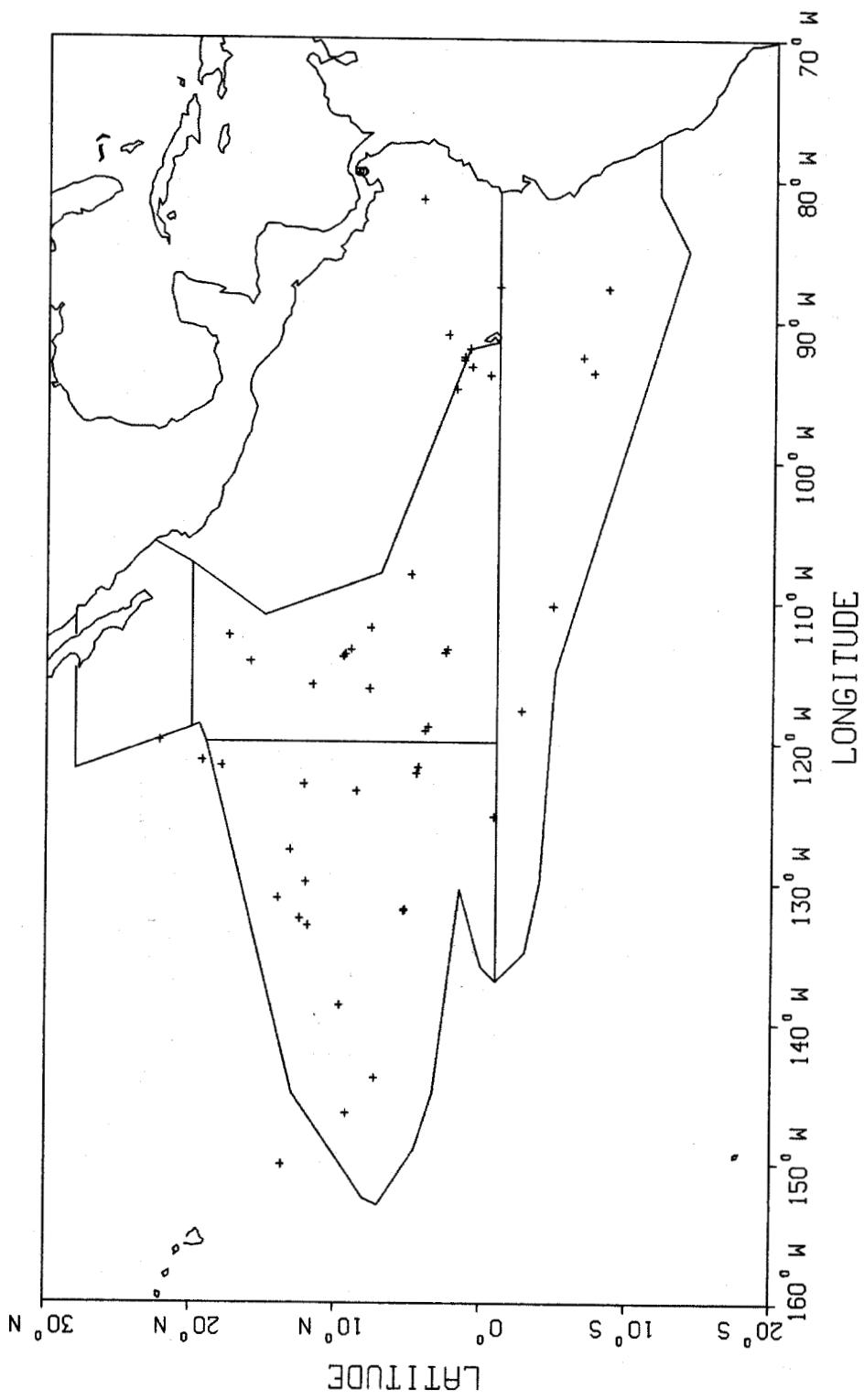


Figure 6. Offshore (+) and coastal (o) spotted dolphins detected from aboard the NOAA ship McArthur from July 29 through December 6, 1986 in the eastern tropical Pacific.

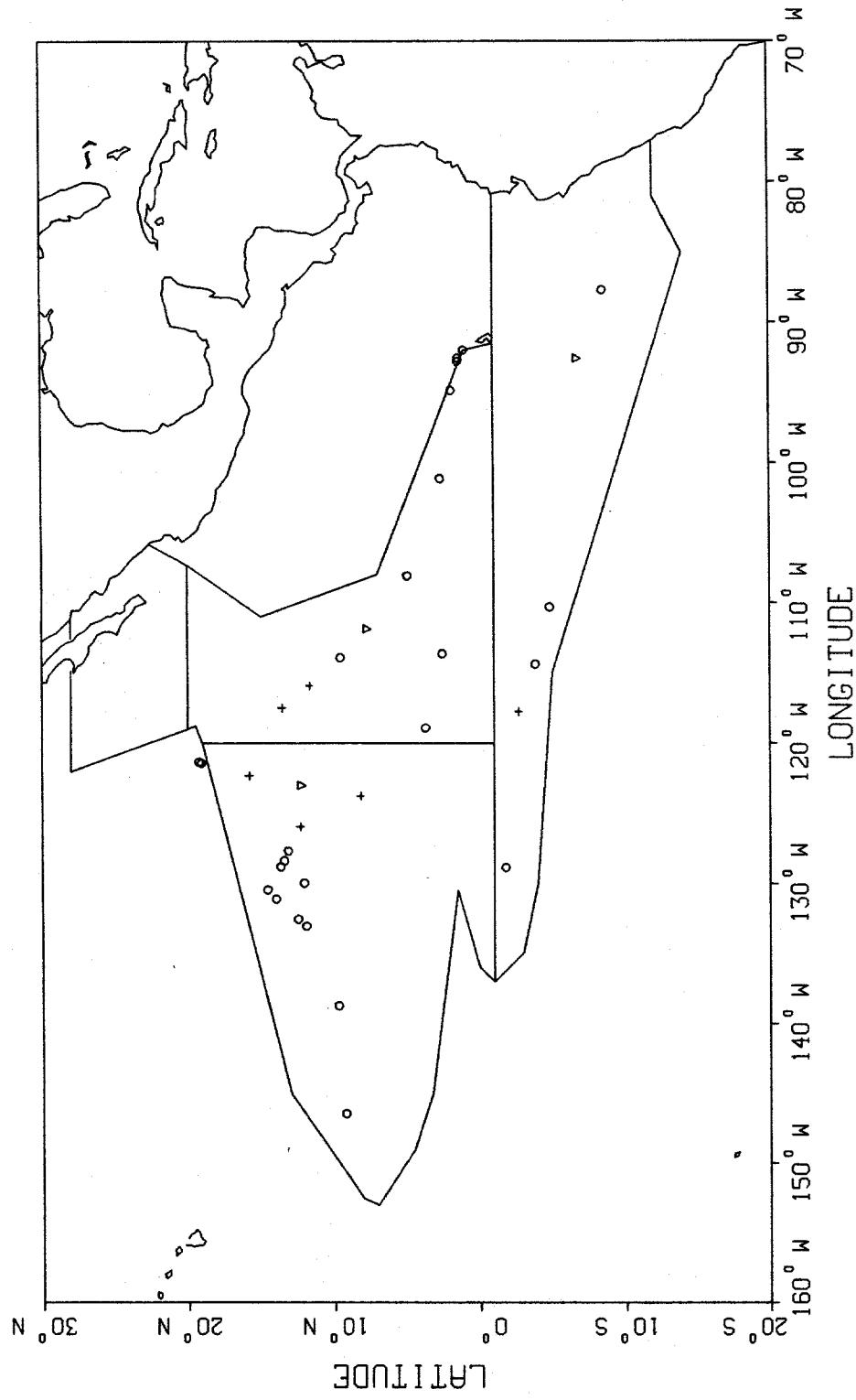


Figure 7. Eastern (+), whitebelly (o) and unidentified (v) spinner dolphins detected from aboard the NOAA ship McArthur from July 29 through December 6, 1986 in the eastern tropical Pacific.

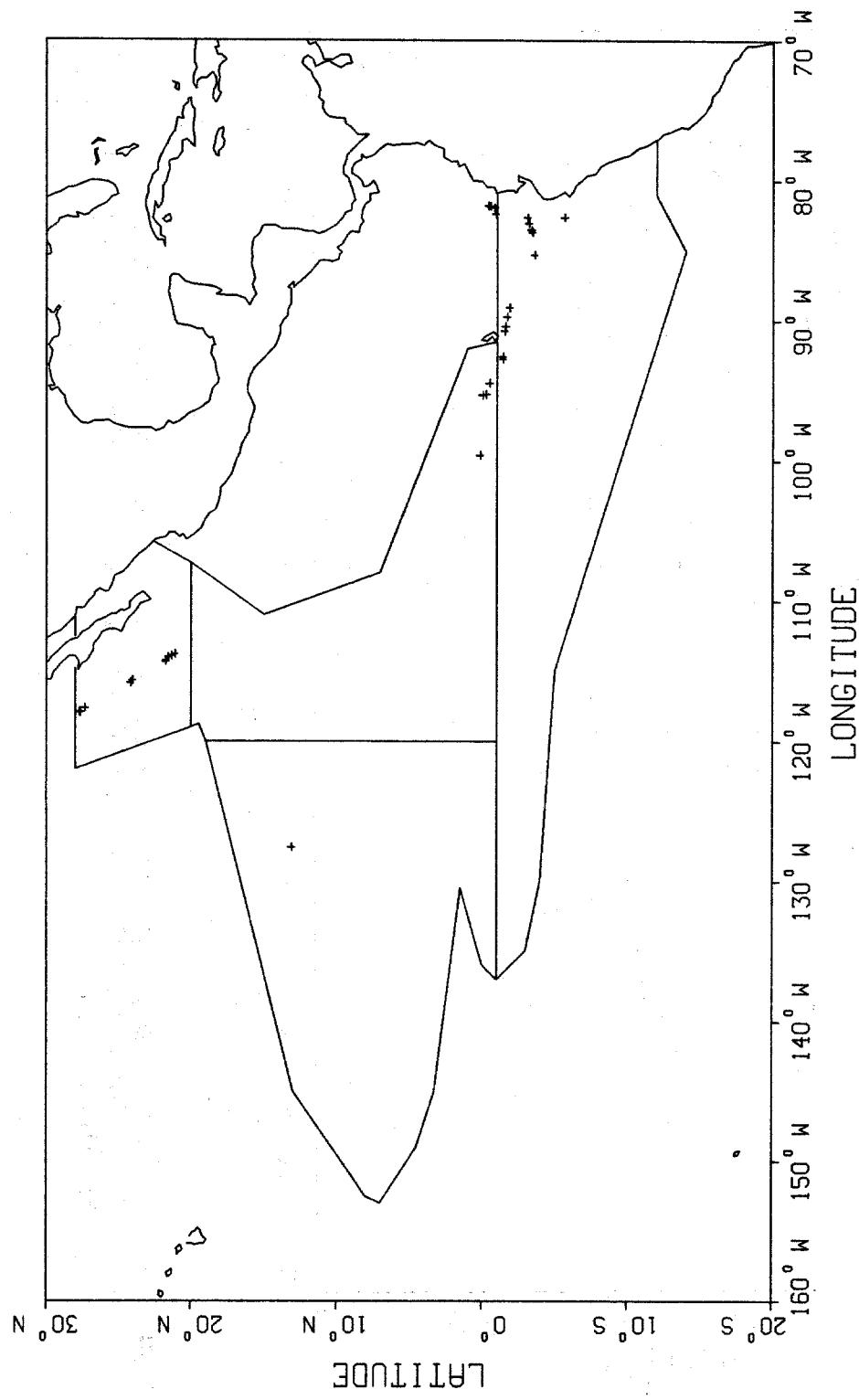


Figure 8. Common dolphins (+) detected from aboard the NOAA ship McArthur from July 29 through December 6, 1986 in the eastern tropical Pacific.

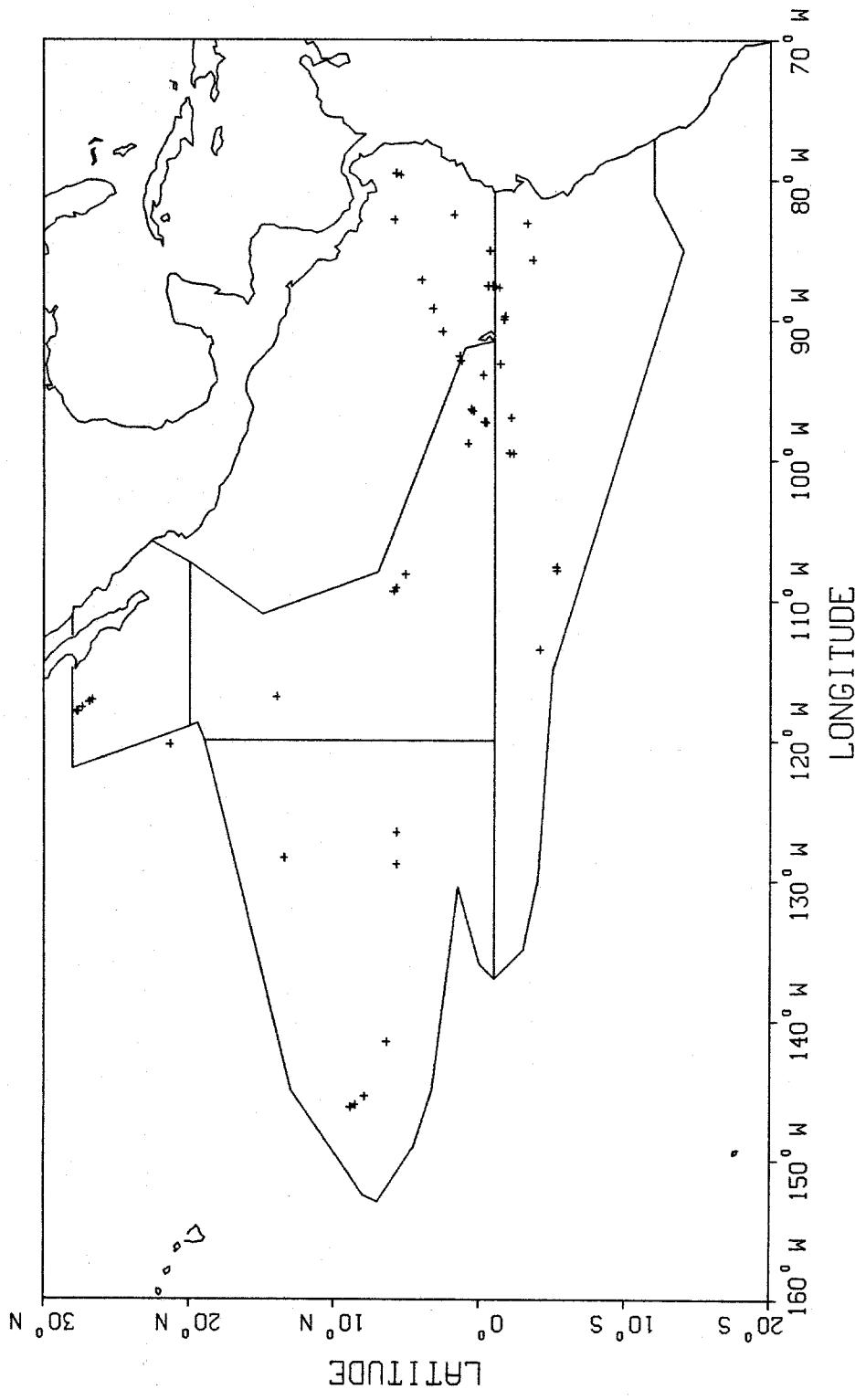


Figure 9. Striped dolphins (+) detected from aboard the NOAA ship McArthur from July 29 through December 6, 1986 in the eastern tropical Pacific.

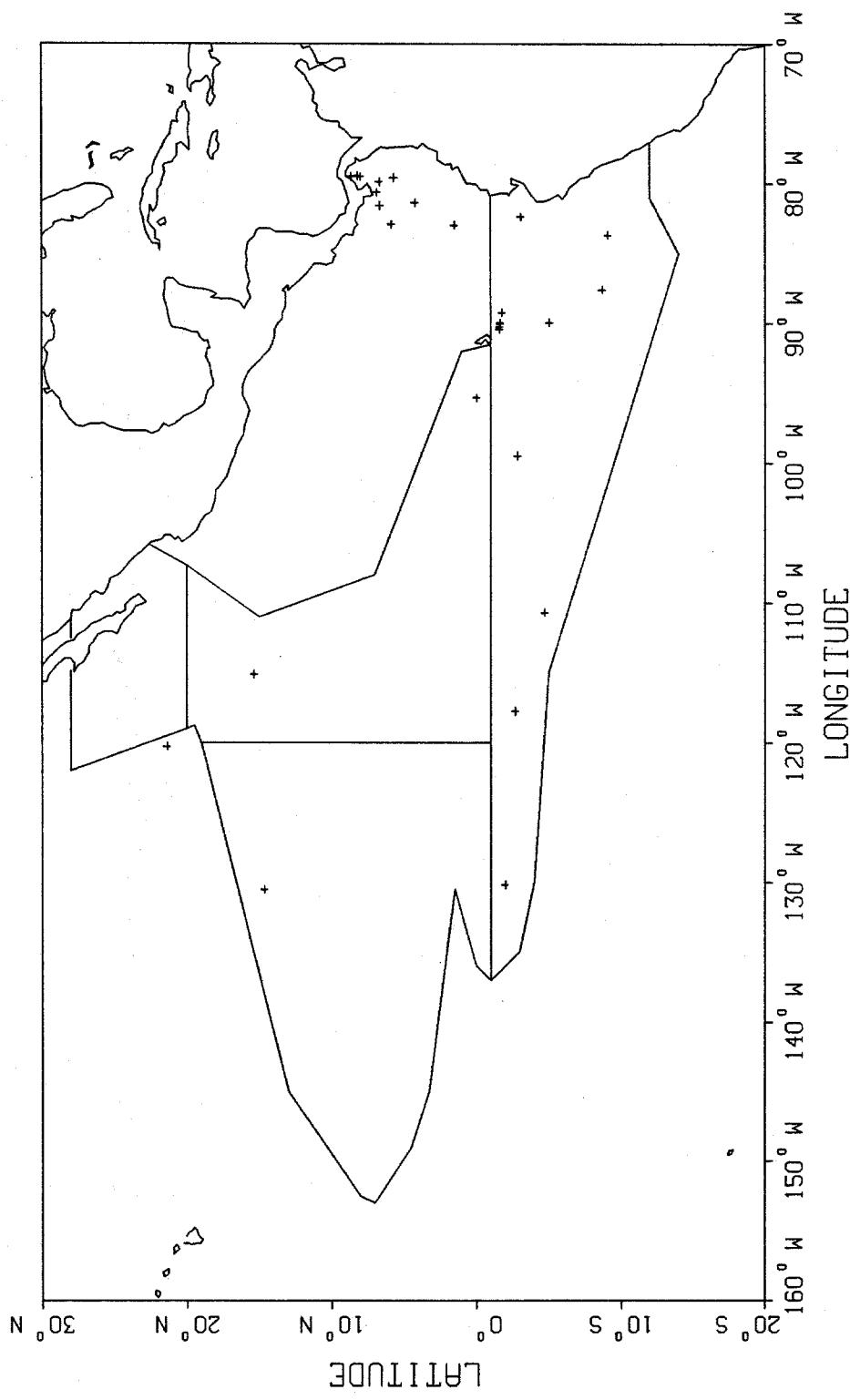


Figure 10. Bottlenose dolphins (+) detected from aboard the NOAA ship McArthur from July 29 through December 6, 1986 in the eastern tropical Pacific.

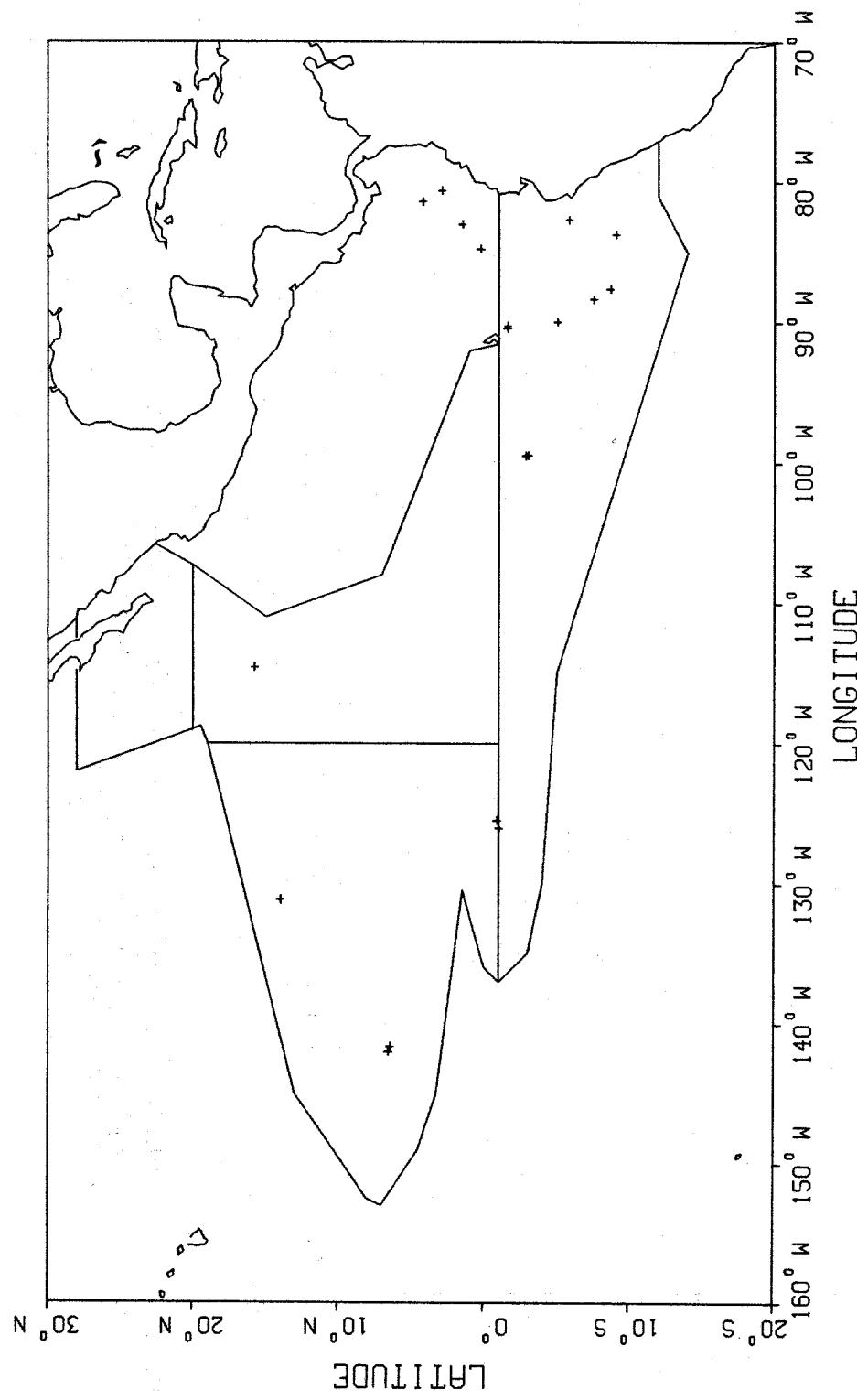


Figure 11. Risso's dolphins (+) detected from aboard the NOAA ship McArthur from July 29 through December 6, 1986 in the eastern tropical Pacific.

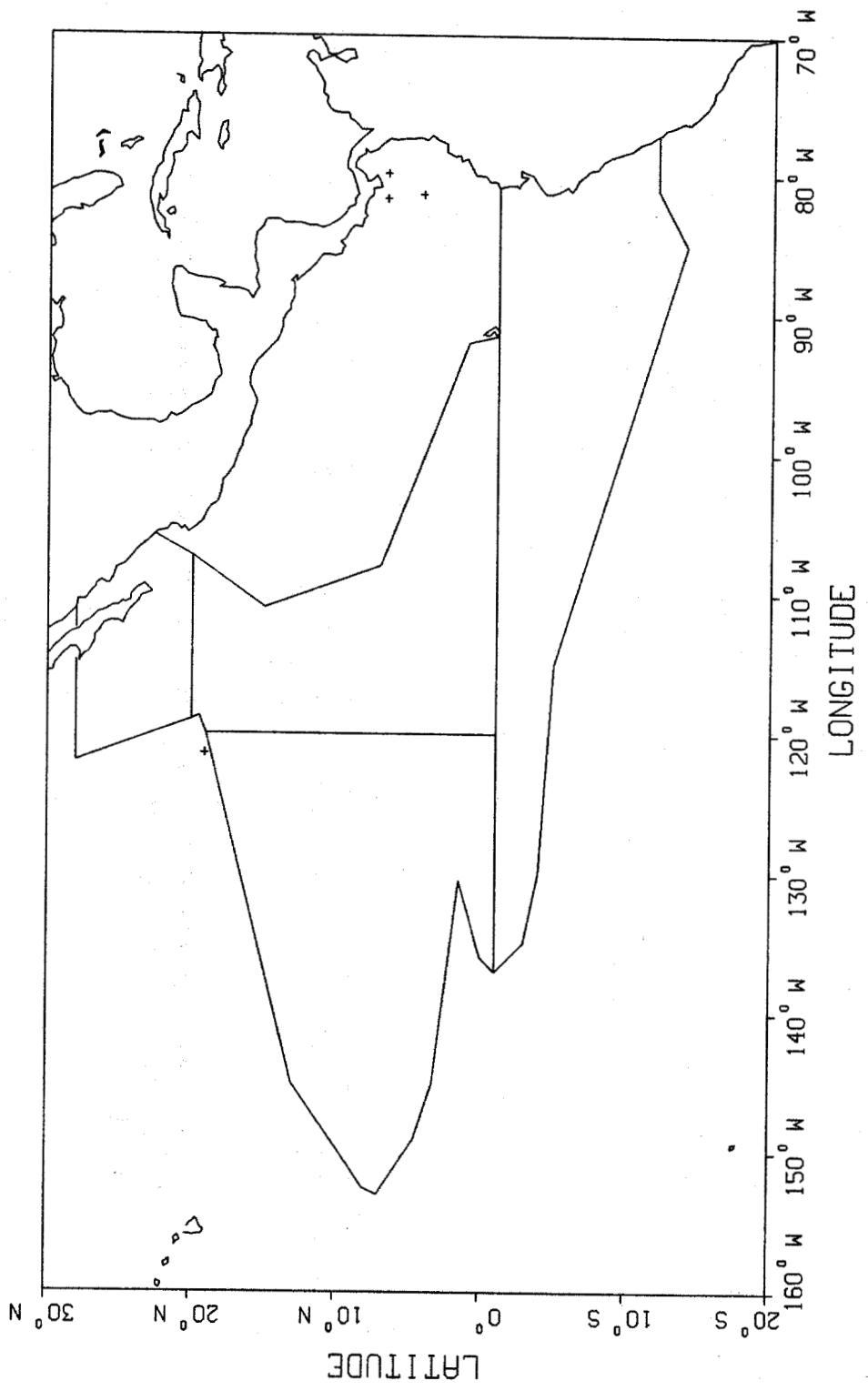


Figure 12. Rough-toothed dolphins (+) detected from aboard the NOAA ship McArthur from July 29 through December 6, 1986, in the eastern tropical Pacific.

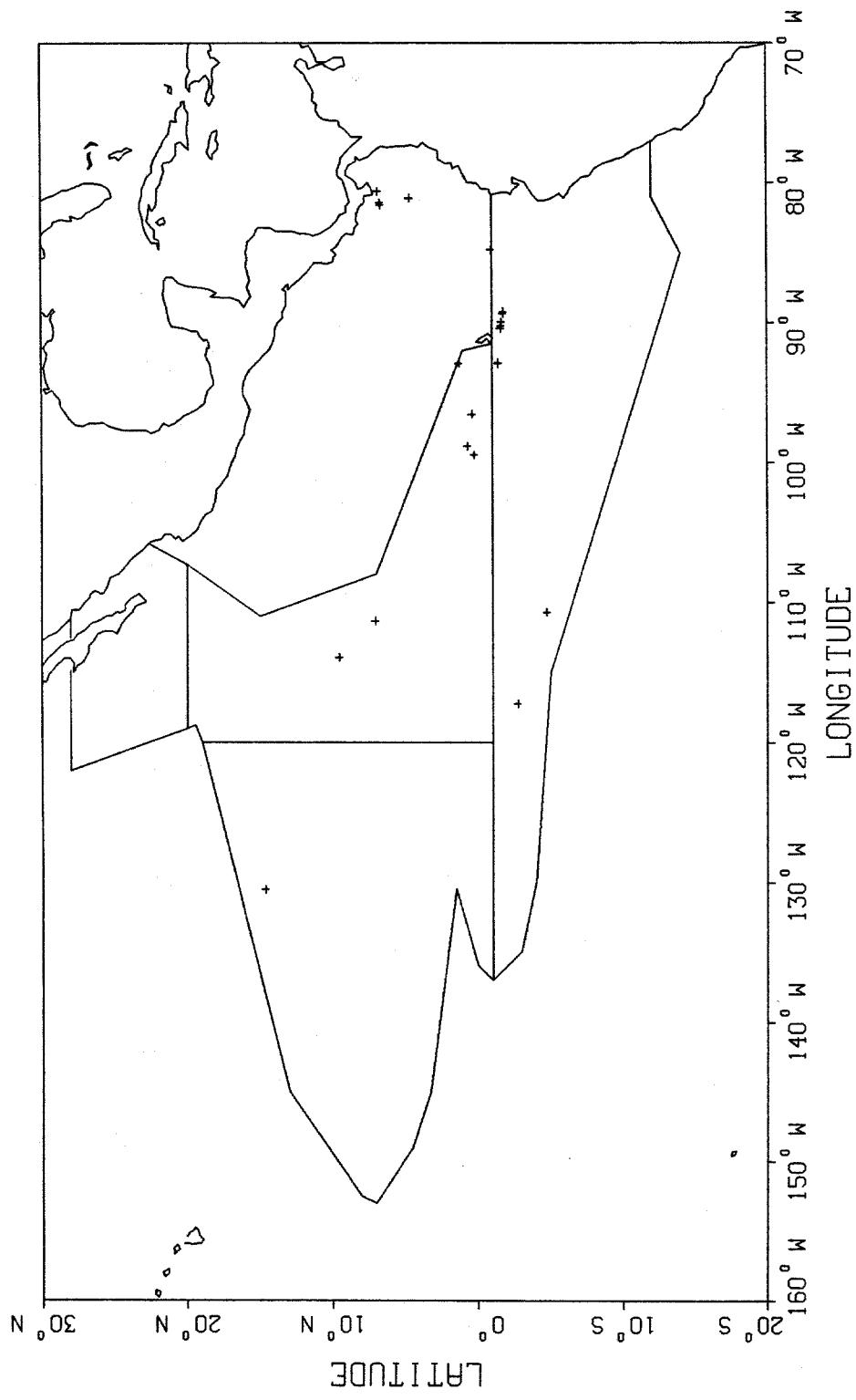


Figure 13. Pilot whales (+) detected from aboard the NOAA ship McArthur from July 29 through December 6, 1986 in the eastern tropical Pacific.

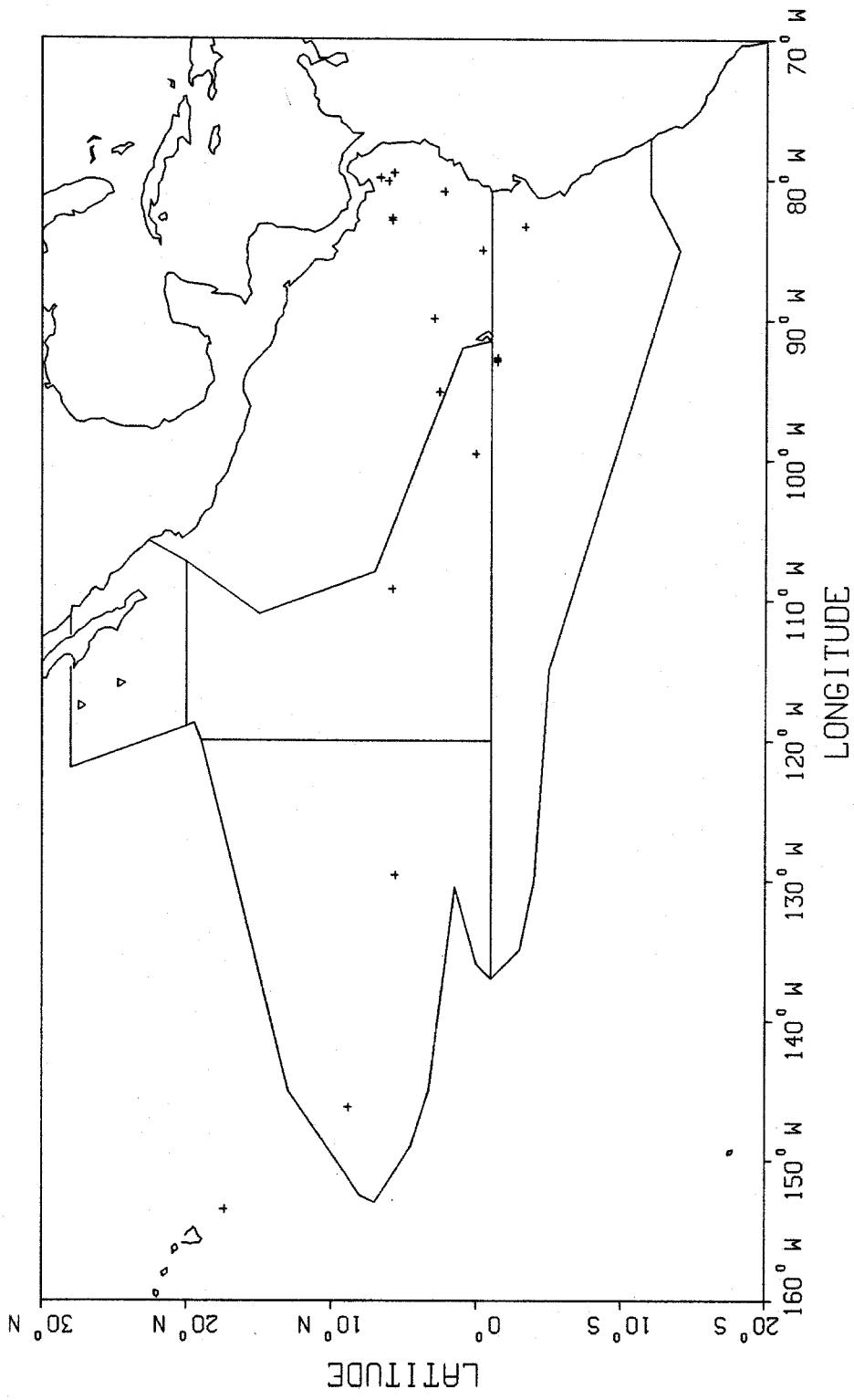


Figure 14. Sperm (+) and pygmy sperm (∇) whales detected from aboard the NOAA ship McArthur from July 29 through December 6, 1986 in the eastern tropical Pacific.

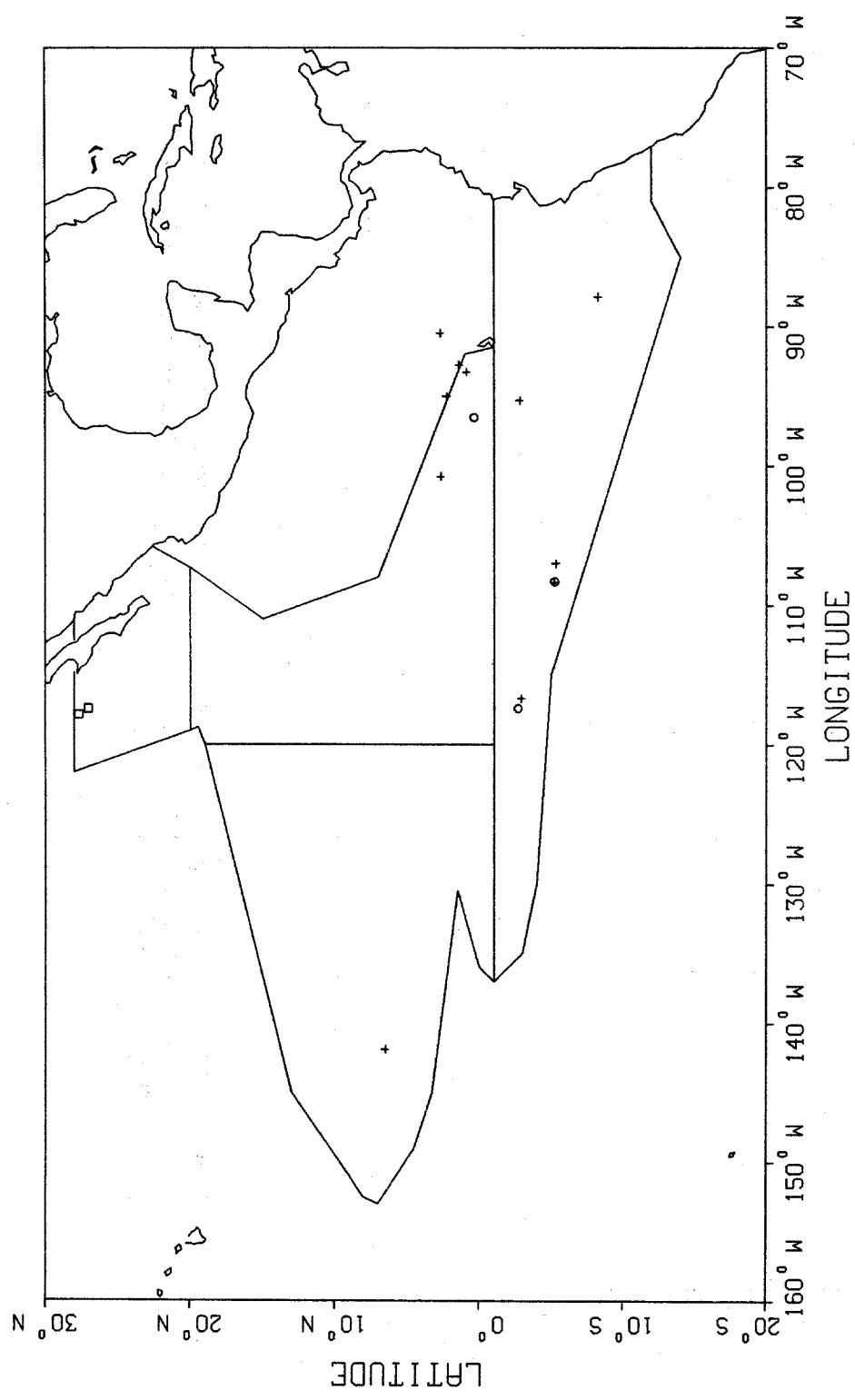


Figure 15. Unidentified rorquals (+), Bryde's (o) and minke (□) whales detected from aboard the NOAA ship McArthur from July 29 through December 6, 1986 in the eastern tropical Pacific.

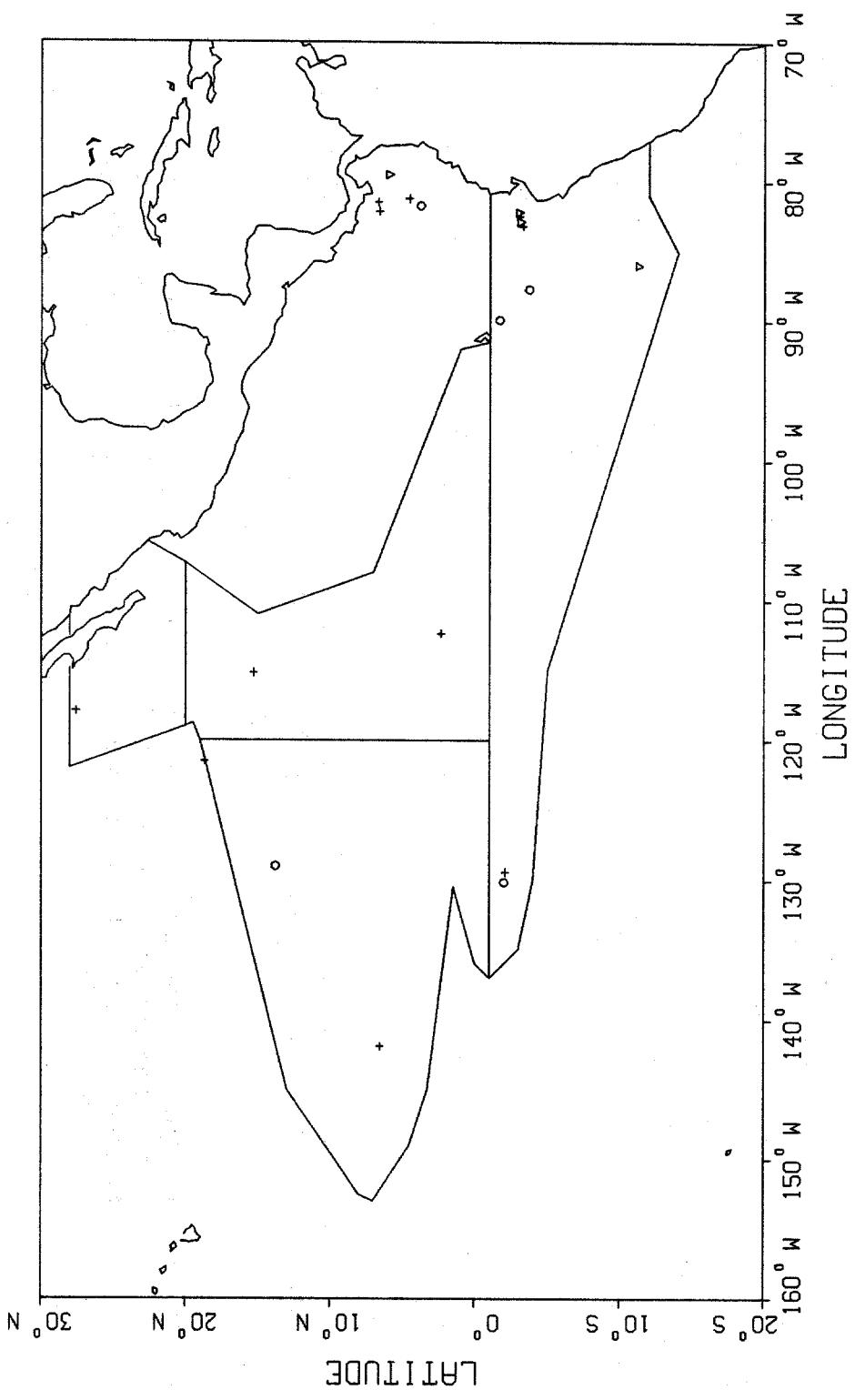


Figure 16. Unidentified beaked (+), Cuvier's beaked (o) and unidentified mesoplodon (v) whales detected from aboard the NOAA ship McArthur from July 29 through December 6, 1986 in the eastern tropical Pacific.

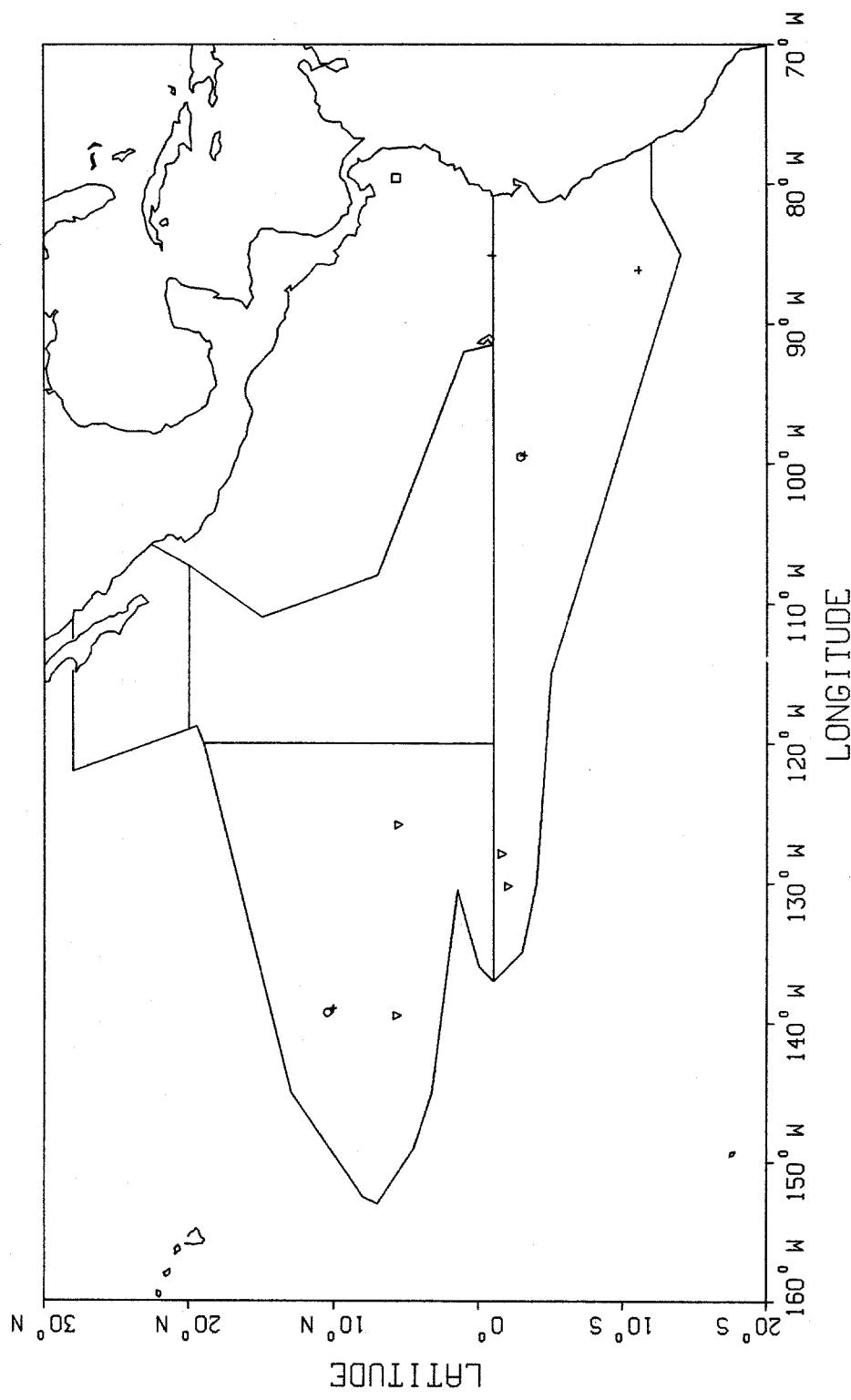


Figure 17. Killer (+) and false killer (o) whales, Fraser's dolphins (▽) and melon-headed whales (□) detected from aboard the NOAA ship McArthur from July 29 through December 6, 1986 in the eastern tropical Pacific.

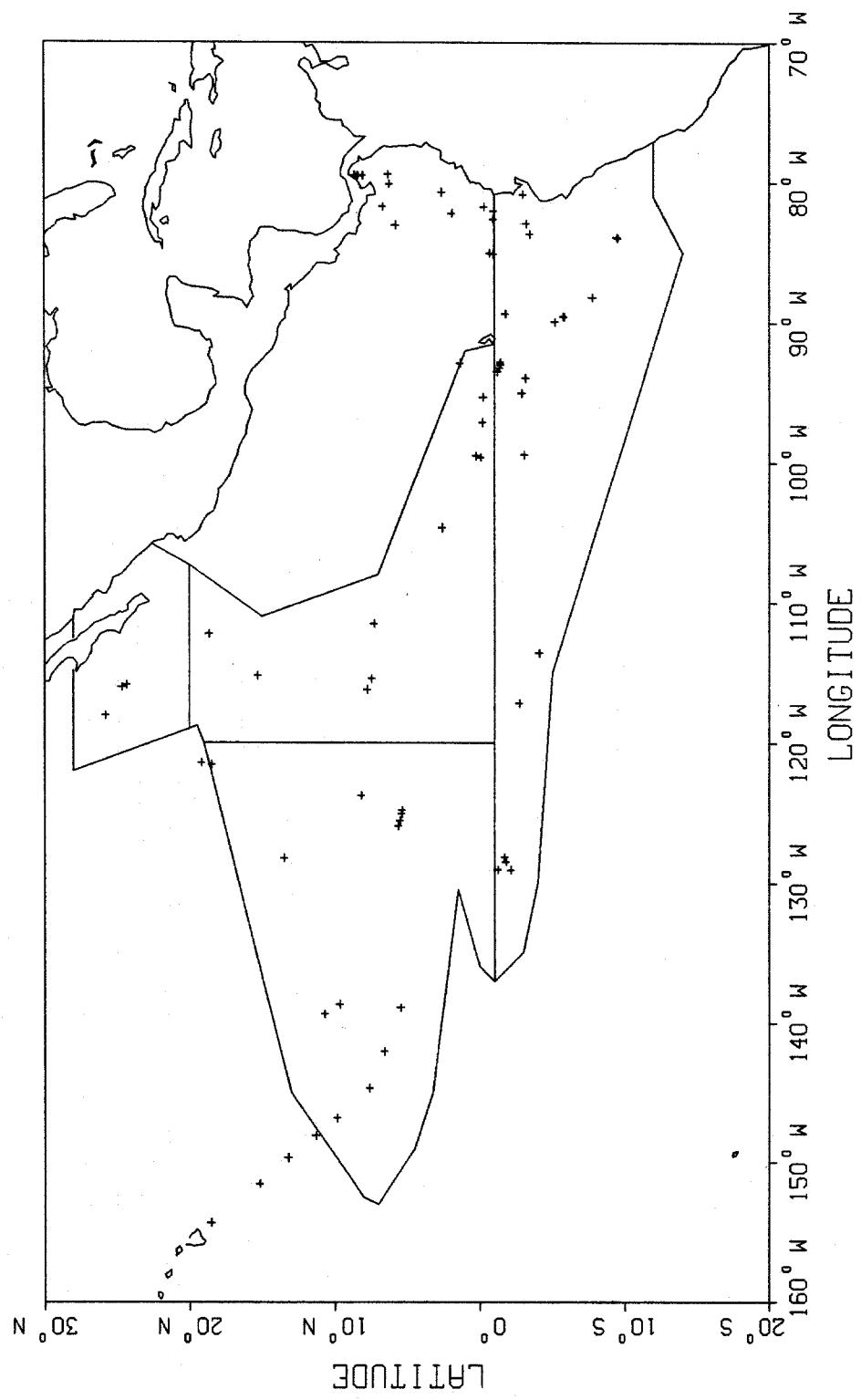


Figure 18. Unidentified dolphins (+) detected from aboard the NOAA ship McArthur from July 29 through December 6, 1986 in the eastern tropical Pacific.

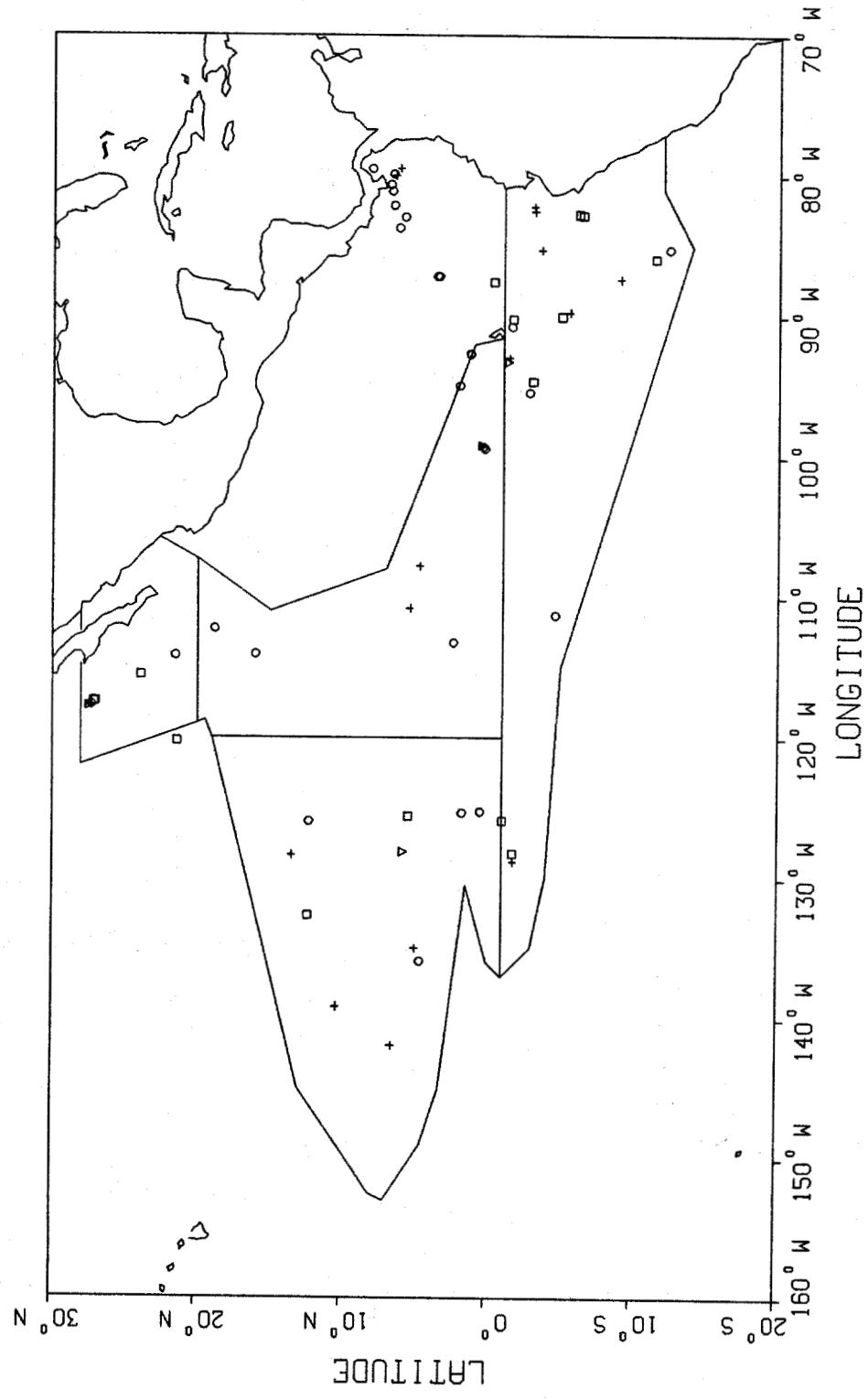


Figure 19. Unidentified small whales (+), unidentified large whales (\circ) and unidentified cetaceans (\square) detected from aboard the NOAA ship McArthur through December 6, 1986 in the eastern tropical Pacific.

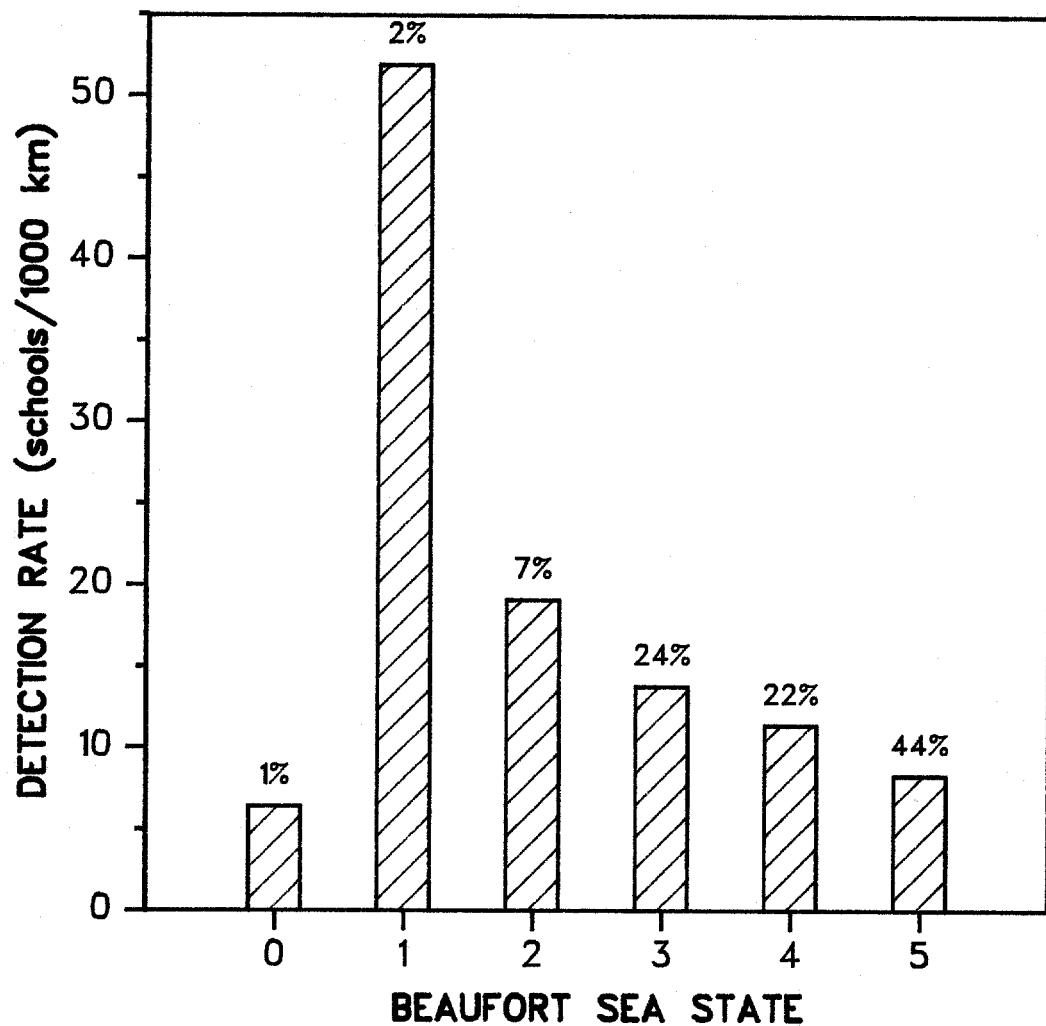


Figure 20. Rate of encountering dolphin schools during each Beaufort state from aboard the McArthur in the eastern tropical Pacific during July 29 through December 6, 1986. Percentages are amount of total effort searched during each sea state.

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